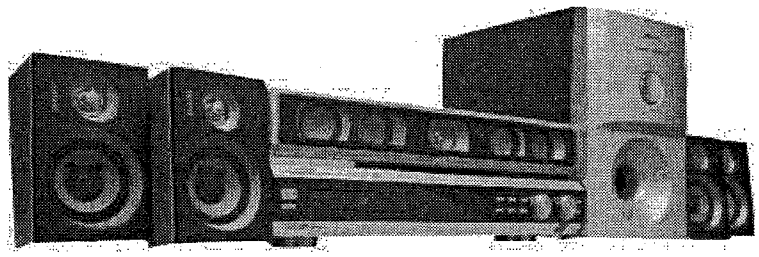
DVD Receiver

MX3660D/21H/30/37

Service
Service
Service



Service Manual

For repair information on the Subwoofer, please refer to Service Manual SW3660/17 (12NC: 3139 785 30380) & SW3660/00 (12NC: 3139 785 30420).

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CLASS 1
LASER PRODUCT

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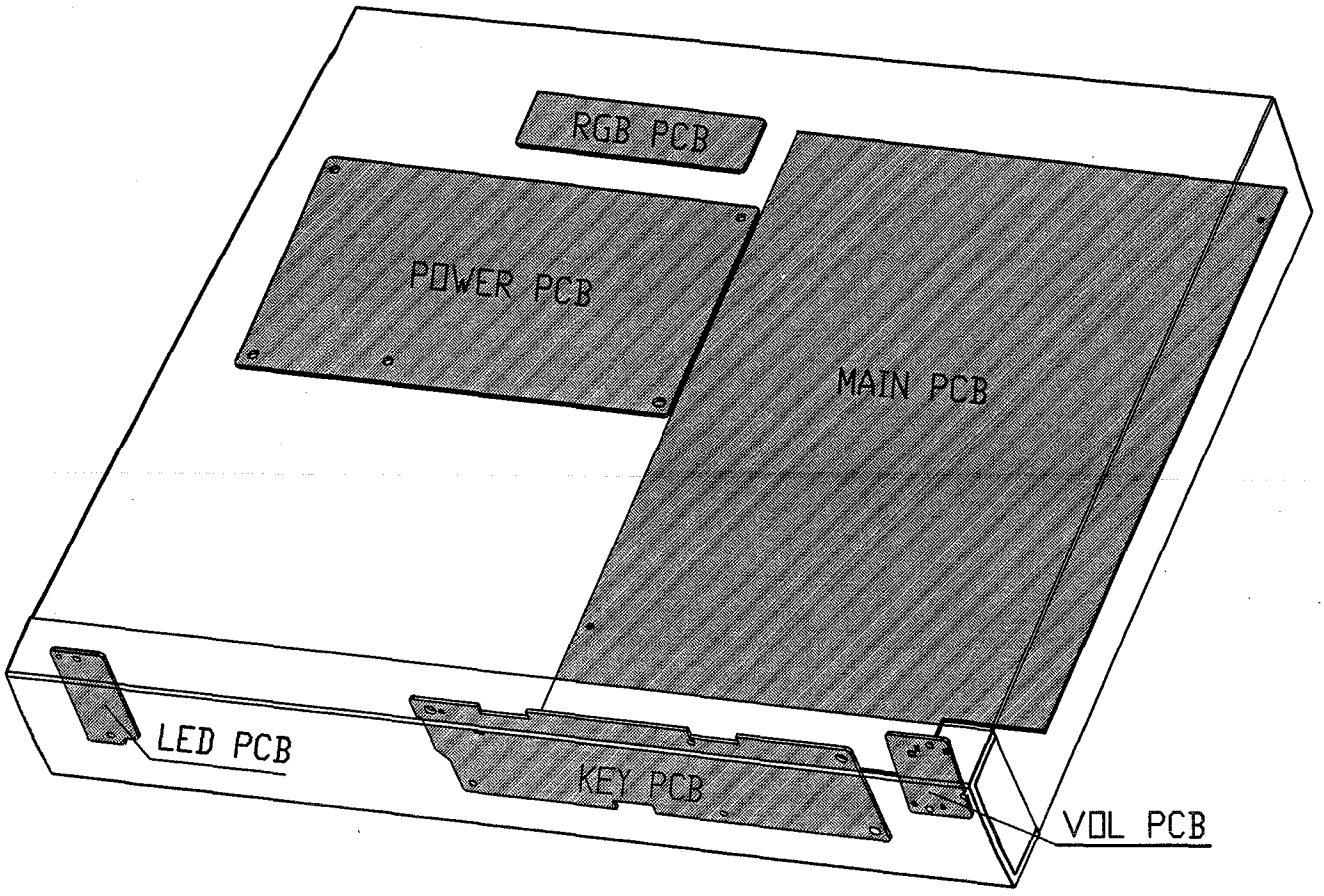
GB 3139 785 30410

Version 2.0

PHILIPS

LOCATION OF PC BOARDS



VERSION VARIATION:

Type/Versions / Features & Board in used	MX3660D /21H	MX3660D /30	MX3660D /37
RDS function			
Progressive scan			
Scart board			
RGB board	x	x	x
Power PCB(120V)			x
Power PCB(220V~240V)	x	x	
Subwoofer SW3660/00	x	x	
Subwoofer SW3660/17			x

SPECIFICATIONS

AMPLIFIER SECTION

Power Output
- Stereo mode (DIN).....2 x 50 W
.....2 x 40W FTC
- Surround mode (1 kHz).....50 W RMS/channel
Total Harmonic Distortion.....10 % at rated power (1 kHz)
Frequency Response .....180 Hz-14 kHz/±1 dB
Signal-to-Noise Ratio.....> 65dB(CCIR)
Input Sensitivity.....400 mV

DVD SECTION

Laser Type.....Semiconductor
Disc Diameter.....12cm/8cm
Video Decoding.....MPEG-2
Audio DAC.....10 Bits
Signal System.....PAL/NTSC
Video Format.....4:3/16.9
Video S / N.....56 dB (minimum)
Composite Video Oput.....1.0V p-p, 75Ω
S-Video Output.....Y-1.0V p-p, 75Ω
.....C-0.286Vp-p, 75Ω
Audio DAC.....Direct Digital Amplification
Frequency Response.....4 Hz-20 kHz (44.1kHz)
..... 4 Hz-22 kHz (48 kHz)
..... 4 Hz-44 kHz (96 kHz)
Digital Output.....SPDIF Coaxial & Optical

TUNER SECTION

Tuning Range..... FM 87.5 -108 MHz (100 kHz steps) (/37)
Tuning Range....FM 87.5 -108 MHz (50 kHz steps) (/21H,/30)
.....AM 530 - 1710 kHz (10 kHz steps) (/37)
.....MW 531 - 1602 kHz (9 kHz steps) (/21H,/30)
26 dB Quieting Sensitivity.....FM 20 dB
26 dB Quieting Sensitivity.....AM 5000 uV/m
Image Rejection Ratio.....FM 25 dB
.....AM 28 dB (/37)
.....MW 28 dB (/21H,/30)
IF Rejection Ratio.....FM 60 dB
.....AM 24 dB (/37)
.....MW 24 dB (/21H,30)
Signal-to-Noise Ratio.....FM 55 dB
.....AM 35 dB (/37)
.....MW 35 dB (/21H,/30)
AM Suppression Ratio.....FM 30 dB
Harmonic Distortion.....FM Mono 3%
.....FM Stereo 3%
.....AM 5% (/37)
.....MW 5% (/21H,/30)
Frequency Response.....FM 180 Hz-10kHz/±6 dB
Stereo Separation.....FM 26 dB(1 kHz)
Stereo threshold.....FM 23.5 dB

MISCELLANEOUS

Power Supply Rating.....120V/60 Hz (/37)
Power Supply Rating.....220-240 / 50-60 Hz (/21H,/30)
Power Consumption..... 160W
Dimensions (w x h x d)..... 435 mm x 81 mm x 360mm
.....17.1x3.1x14.2 (inch)
Weight.....5.1 kg
.....11,2 pounds

IR REMOTE CONTROL

Effective Range.....> 8 Meter
Number of Keys.....45
Battery (1.5V).....AA x 2

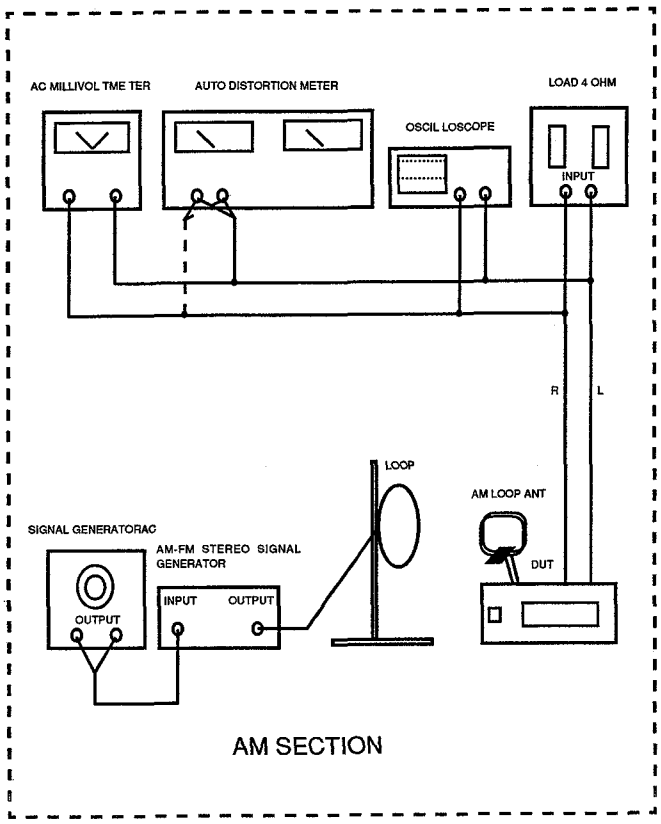
SPEAKERS

Front Speakers / Surround speaker

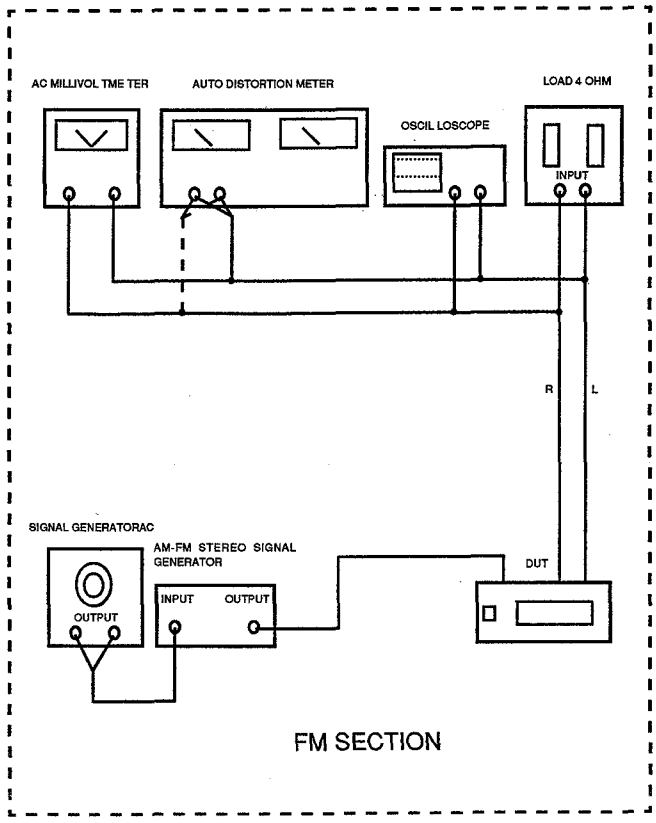
System.....2-way shielded
Impedance.....8Ω
Speaker drivers.....3" full range, 1" piezo
Dimensions (w x h x d)..... 96 mm x 155 mm x 95 mm
.....3.78x6.10x3.74(inch)
Weight..... 0.45 Kg/each
.....0.99 pounds / each

Center Speaker

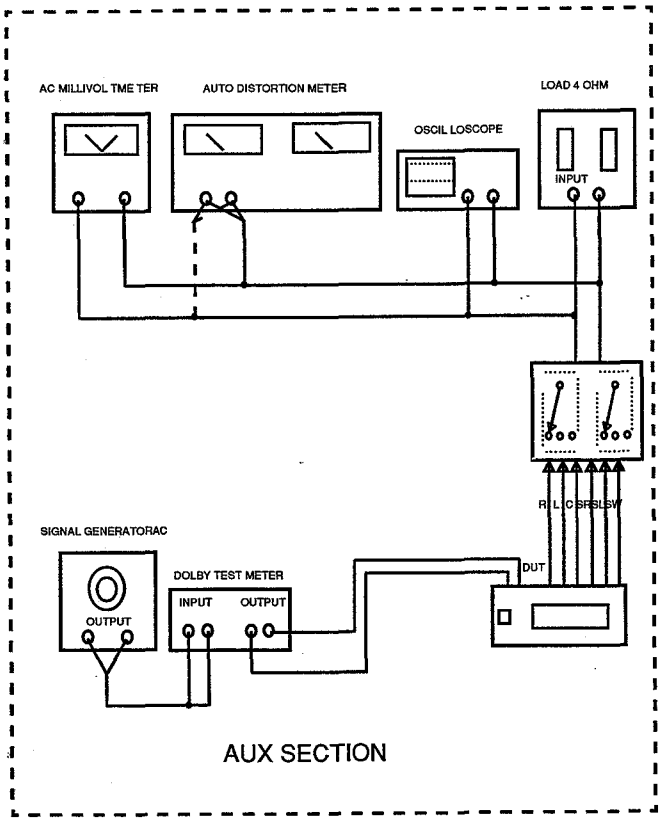
System.....5 multi directional driver
Impedance.....8Ω
Speaker drivers.....4x2" woofer,13/4" tweeter
Dimensions (w x h x d).....435 mm x 72 mm x 63.5 mm
.....17.13x2.83x2.5 (inch) (/37)
Weight..... 1.32kg
.....2.90 pounds (/37)



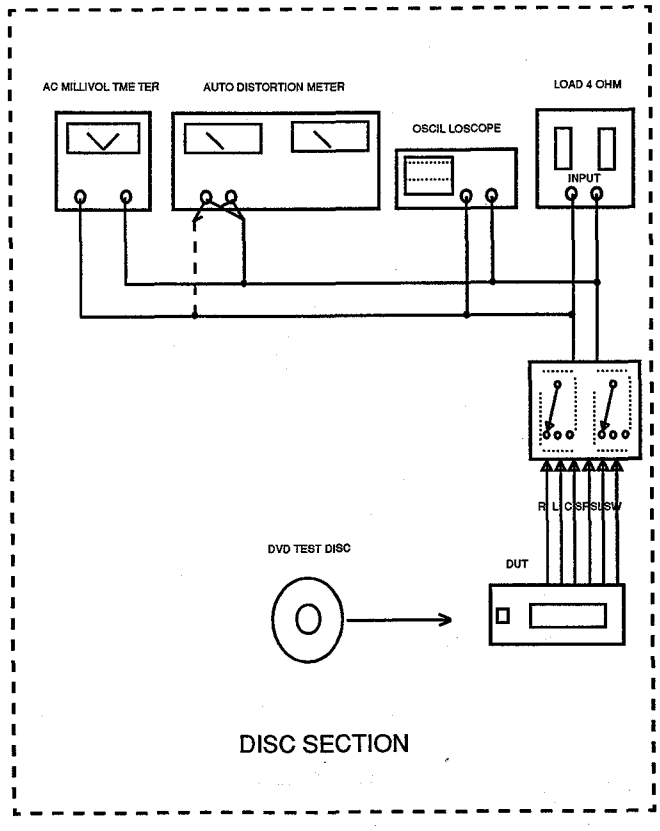
AM SECTION



FM SECTION



AUX SECTION



DISC SECTION

SERVICE AIDS

Service Tools:

Universal Torx driver holder 4822 395 91019
Torx bit T10 150mm 4822 395 50456
Torx driver set T6-T20 .....4822 395 50145
Torx driver T10 extended 4822 395 50423

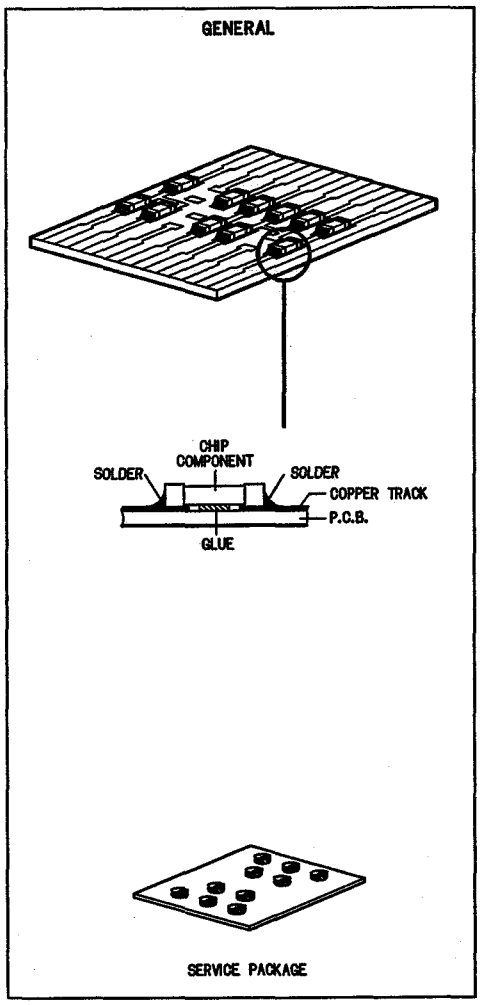
Compact Disc:

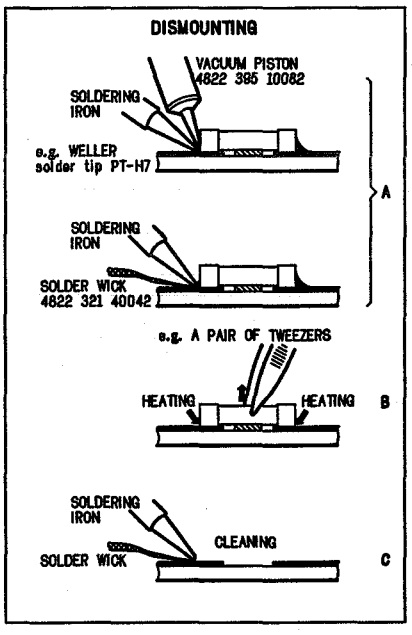
SBC426/426A Test disc 5 + 5A 4822 397 30096
SBC442 Audio Burn-in test disc 1kHz 4822 397 30155
SBC429 Audio Signals disc 4822 397 30184
Dolby Pro-logic Test Disc 4822 395 10216

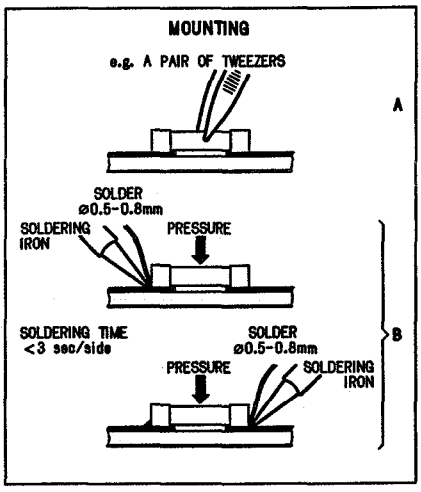
ESD Equipment:

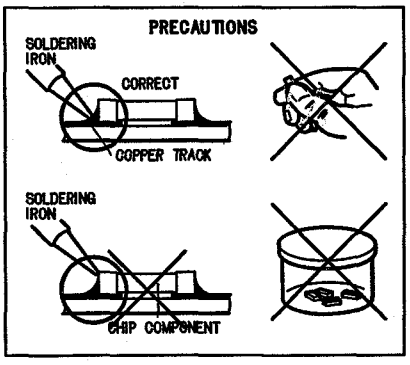
Anti-static table mat - large 1200x650x1.25mm ...4822 466 10953
anti-static table mat - small 600x650x1.25mm 4822 466 10958
Anti-static wristband 4822 395 10223
Connectorbox (1MΩ) 4822 395 11307
Extension cable
(to connect wristband to conn.box) 4822 320 11305
Connecting cable
(to connect table mat to conn.box) 4822 320 11306
Earth cable (to Connect product to mat or box) --4822 320 11308
Complete kit ESD3
(combining all above products) 4822 320 10671
Wristband tester 4822 344 13999

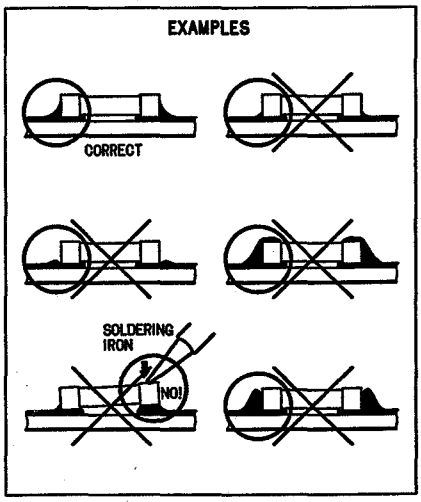
HANDLING CHIP COMPONENTS











ESD

(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools also at this potential.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren.
Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utiliséés les piéces de rechange identiques à celles spécifiées.

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Original zustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

"After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist. The leakage current must not exceed 0.5mA."

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

(GB) Warning !

Invisible laser radiation when open.
Avoid direct exposure to beam.

(S) Varning !

Osynlig laserstrålning när apparaten är öppnad och spärren är urkopplad. Betrakta ej strålen.

(SF) Varoitus !

Avatussa laitteessa ja suojalukituksen ohitettaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

(DK) Advarse !

Usynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsaettelse for stråling.

System, Region code, Tuner, etc. setting procedure

1) System Reset

a) Press "SYSTEM" button on R/C. TV show "SETUP"
b) Select the menu using the "▼" and "►" button on R/C
c) Go feature setup page to do system reset

2) Region Code Change

After replacement / repair of the MPEG board, the customer setting and the region code may lost. Changing the Region code will put the player back in the state which it has left the factory.

Region Code

1	USA
2	EU
3	AP
4	Australia, NZ, Latam
5	RUSSIA, INDIA
6	CHINA

TV System

1	NTSC
2	PAL
3	AUTO

Menu/ Audio Subtitle (AS) Language

1	English
2	English
3	English
4	English

AFS

001	LX3000D/LX3500D
002	MX3600D/MX3700D/MX3800/MX3550D
003	LX3700D/LX3750W
005	MRD210
006	MX3660D

oem derivative

08

- region code = 1 digit
- tv system = 1 digit
- "as/menu lang" = 1 digit
- "AFS" = "architechture Feature Set" = 3 digits

This field is used to define the architecture / features sets for each product.

- "oem derivative" = 2 digit

This field is use to define the OEM set. This will affect the background display.

Hence in total, reprograming will be done by way of the remote control. It should run as below :-

a) Put the player in stop mode. No disc loaded.
b) Press the following key on remote control:

For MX3660D/37 (USA)
<PLAY> <159> <111> <006> <08> PLAY

For MX3660D/21H (APAC)
<PLAY> <159> <331> <006> <08> PLAY

For MX3660D/30 (AUSTRALIA)
<PLAY> <159> <431> <006> <08> PLAY

✱ After the Region Code is changed it is necessary to reset the system so that the new Region Code will be fully effective. All customer setting will be lost.

✱ On top of the maximum number of times allowed for changing the region code is changed to 25.

✱ When the counter reach 25, you will not be able to further change the code until you reset the timer by the Region Code timer reset procedure

CAUTION !

This information is confidencial and may not be distributed. Only a qualified service person should reprogram the Region Code.

3) Region code change timer reset

Press below key to reset the timer :
a) In DISC source, stop mode and no disc in tray.
b) Press R/C "Play -159-PLAY" to reset timer to 25

4) Tuner area change

a) Press the "OPEN/CLOSE" button to openthe set's door
b) Press "1" "5" "9" button by using R/C.
c) TV Show "TUNER AREA ADJUST"
d) Select the tuner area you want by using the "▼" and "►" button on R/C, then press "OK" to confirm. TV show " TUNER AREA CHANGED"
If you didn't press it in five seconds, the system will remain original status.

AREA	BAND	FREQUENCY (Hz)		STEP(Hz)
USA	FM	87.5M	108M	100K
	AM	530K	1700K	10K
APAC	FM	87.5M	108M	50K
	AM	531K	1602K	9K
EUROPE	FM	87.5M	108M	50K
	AM	531K	1602K	9K
LATAM	FM	87.5M	108M	50K
	AM	530K	1710K	10K
AUSTRALIA / NZ	FM	87.5M	108M	50K
	AM	531K	1602K	9K

Note :-
(a) Please refer to the above different tuner area.

5. Video Out Change

a) Press "SYSTEM" on R/C button
b) Select the menu using the "▼" and "►" button on R/C
c) Go picture setup page select Video out item.

6. Password Change

a) Press "SYSTEM" on R/C button
b) Select the menu using the "▼" and "►" button on R/C
c) Go feature setup page select "PASSWORD". TV show "ENTER CODE". Press 4 times of "STOP" button on R/C.
d) Select "PARENTAL" "8 ADULT" on TV.
e) Enter PASSWORD to "1234"
✱ "1234" is a default password supplied.

7. Checking on the Software version

a) Open the CD door.
b) Press "123" and "OK" on the remote control.
c) TV will show the version on screen.

8. Upgrading new software

a) Open the CD-door, then insert the CD-R program disc.
b) Close the CD-door.
c) TV will show:-
- "disc loading"
- "bank30.rom"
- "writing" about 6 seconds.
- "Done"

✱ The latest upgraded is in version VER0622.

2-2

REPAIR INSTRUCTION

PHILIPS MX3660 REPAIR CHART

MAIN UNIT REPAIR CHART

- A — All Function No Working
- B — VFD Display No Show And Key Function
- C — DVD No Sound
- D — Power Supply No Working
- E — Audio Output No Sound
- F — AUX/TV in No Sound
- G — TUNER No Sound
- H — Ear Head Phone No Sound
- I — Audio Line No Output
- J — Digital Line No Output
- K — Subwoofer Line No Sound

A

All Function No Working

No

Check All System All cable is loose or bad INT

Yes → RE-insert and fix the cable

No

Panel standby LED show Working or Not

No → Check Back power PCB F901 Bad Cause Damage

Bad → Change F901]

Yes

Check CN203 CN906 12V if Right

No → Repair Between RB906 TO CN906 and CN203 Circuit

Yes

Check Repair Control PCB IC981 Standby circuit

Work

Check IC9001 PIN3=5V Check IC9003 PIN=3.3V

No → Check Repair Switch Power Supply Circuit(see B)

Correct

Check All Voltage 3.3V and 5Vgive circuit

Yes → Check IC1003 Pin24(reset) Pin49(osc frequency 27MHZ) Pin102(114MHZ)

Yes → Repair Main PCB Between IC1003 to IC1007 circuit

B

VFD Display No Show And Key Function

Check Control PCB RB201 Cable loose or bad INT

Yes → RE-insert and fix the cable

No

Check Control PCB RB201 Pin5=5V

NO → Check Back Power PCB Power Supply Circuit

Yes

Check Main PCB CN202 CN904 Cabke loose or bad INT

Yes → Re-Insert and fix the cable

NO

Check Test CN202 Pin2/cs Pin3/clk Pin4/data

No → checkC RB201 cable loose or bad INT

Yes → Reinsert and fix the cable

No → check IC1003 IC1002

No → Check Test CN202 Pin5=5V Pin6=-24V Pin7,8=AC2V

No

Check +5V Power Supply circuit

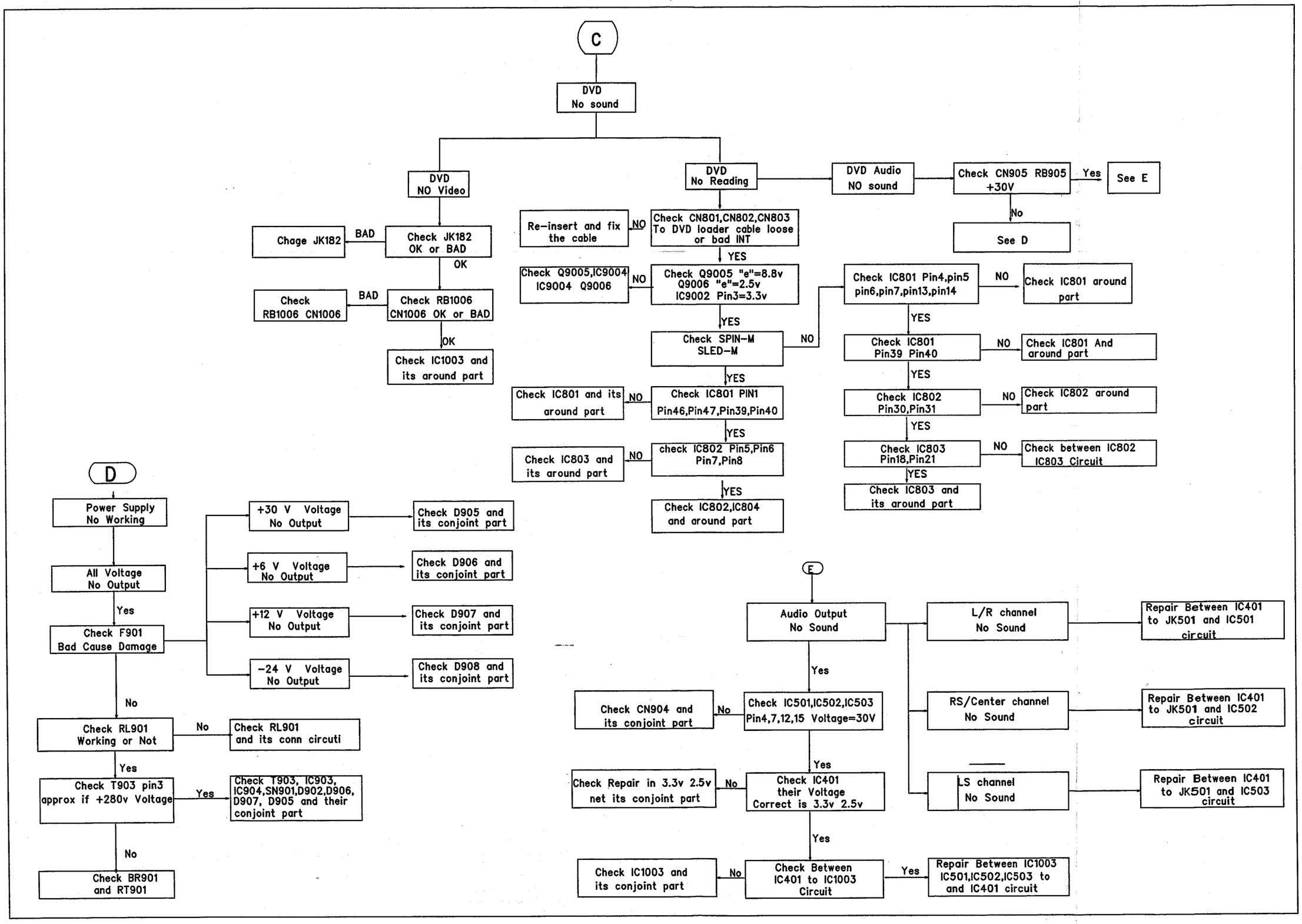
Yes

Yes

Check VFD Control PCB Section Bad Cause Damage

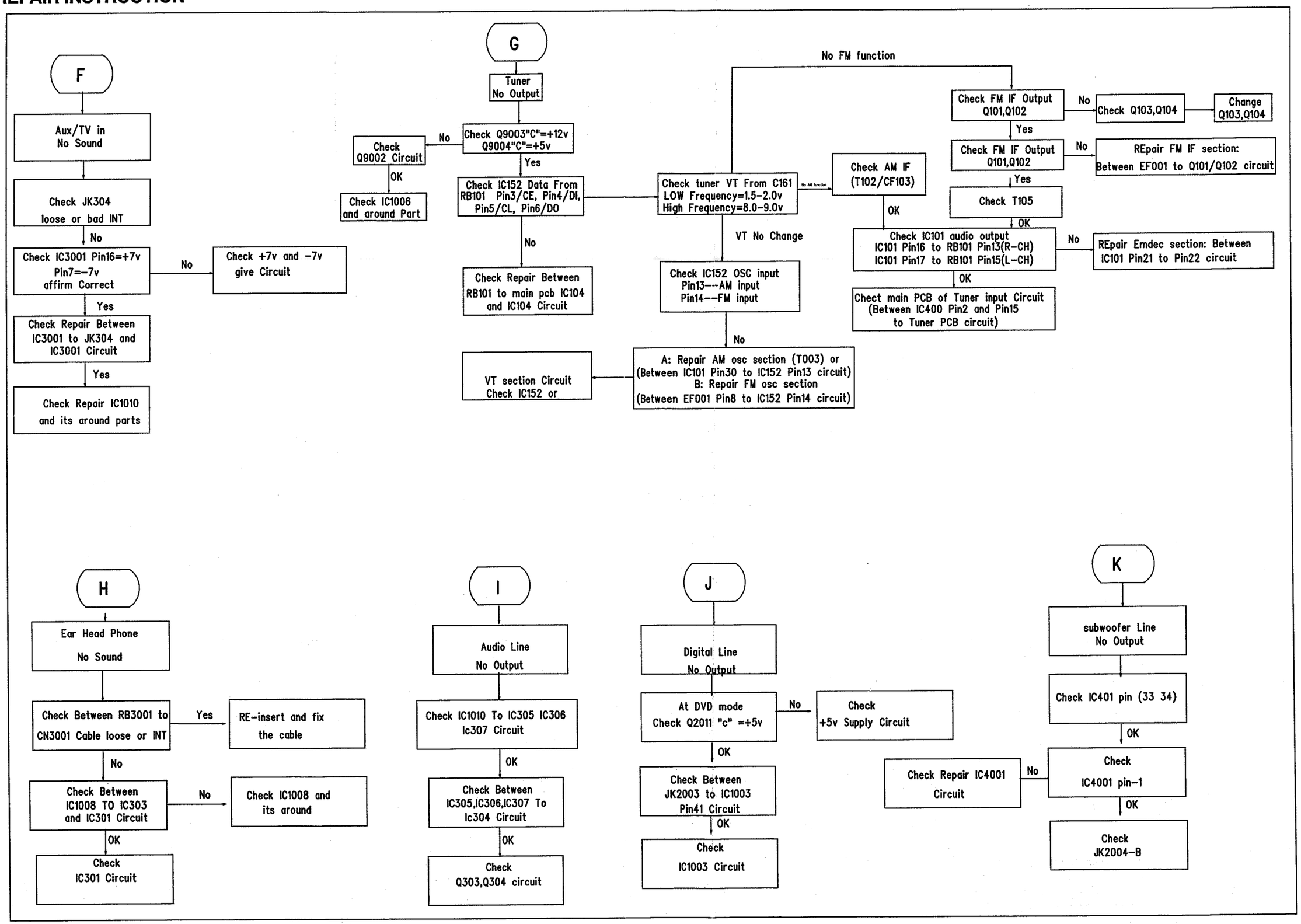
2-3

REPAIR INSTRUCTION



2-4

REPAIR INSTRUCTION



DISASSEMBLY INSTRUCTIONS

Dismantling of the Front Panel Assembly

1) Open the DVD Tray by using the Open/Close Button while the Set is ON and disconnect the mains supply after removing the Tray Cover.

   Note: If this is not possible, the DVD Tray has to be open manually.

   Take a mini screw driver about 2mm diameter and make a marking 24mm from the tip as shown in figure 2. place the set on its side, insert the mini screw driver till the marking and slide it towards the right as shown in figure 1 until the Tray moves out of the Front Panel.

2) Return the set to its upright position and remove the Tray Cover as shown in Figure 3 and close the tray manually by pushing it back in.

3) Loosen 9 screws and remove the Top Cover by lifting the rear portion upwards before sliding it out towards the rear.
   - 5 screws on the back
   - 2 screws each on the left & right side

4) Loosen 7 screws & lift up the top edge of Front Panel assembly to free some catches before sliding it out towards the front.
   - 4 screws on the bottom
   - 1 screw "E" on the inside as indicated in Figure 8.
   - 1 screw each on the left & right side

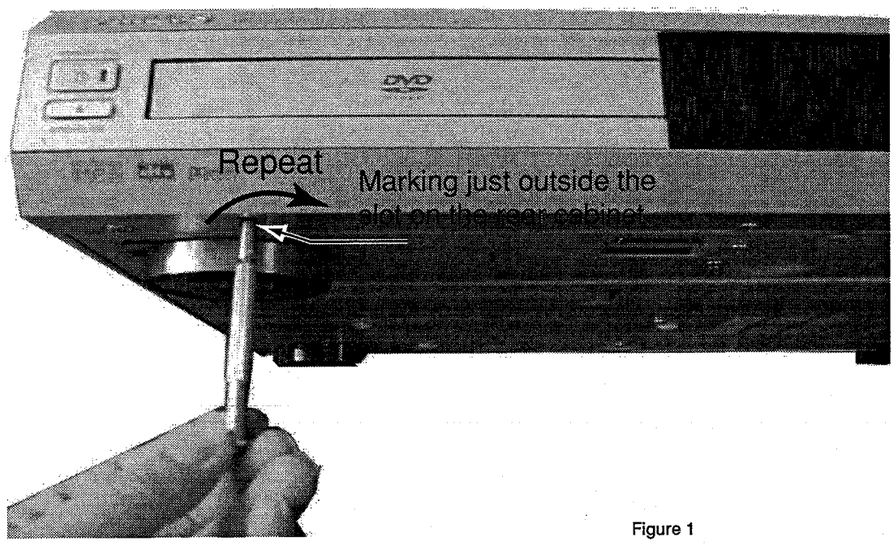


Figure 1

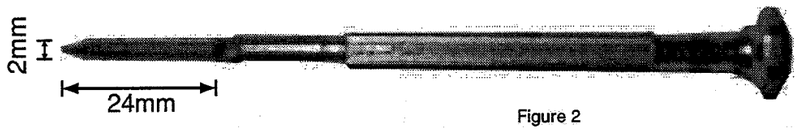


Figure 2

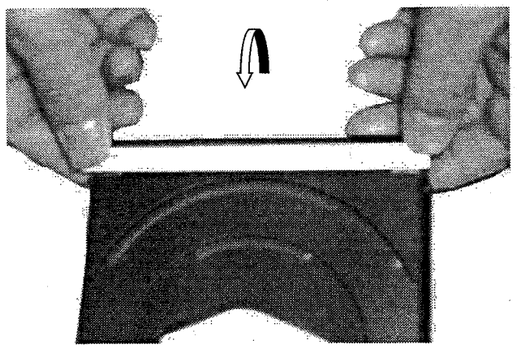


Figure 3

Dismantling of the DVD Module

1) Loosen 4 screws "A" to remove the DVD Module as shown in figure 4.

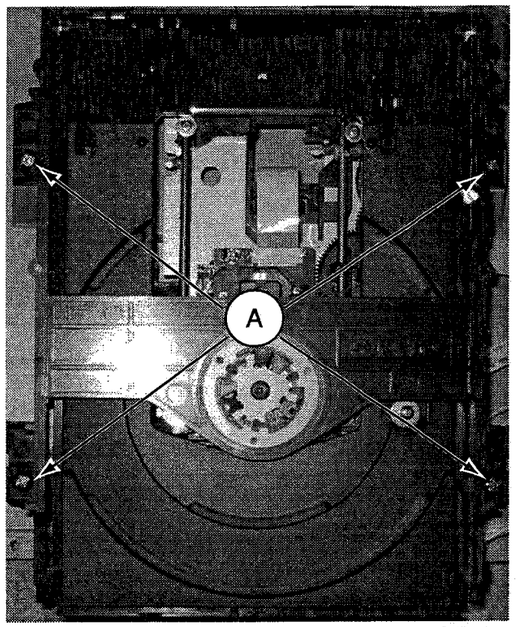


Figure 4

Dismantling of the Power Board

1) Loosen 2 screws "B" on the bottom cover as shown in figure 5.

3) Loosen 4 screws "C" at the top of the Power Board as shown in figure 6

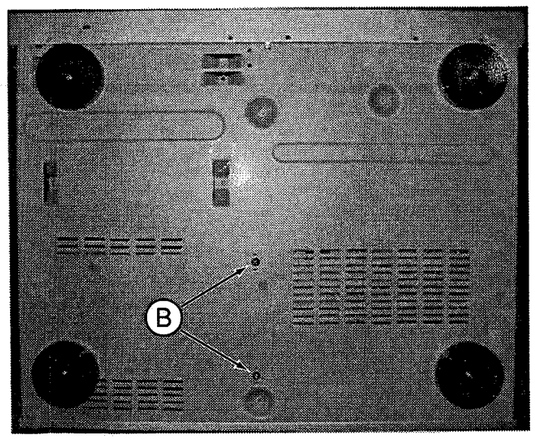


Figure 5

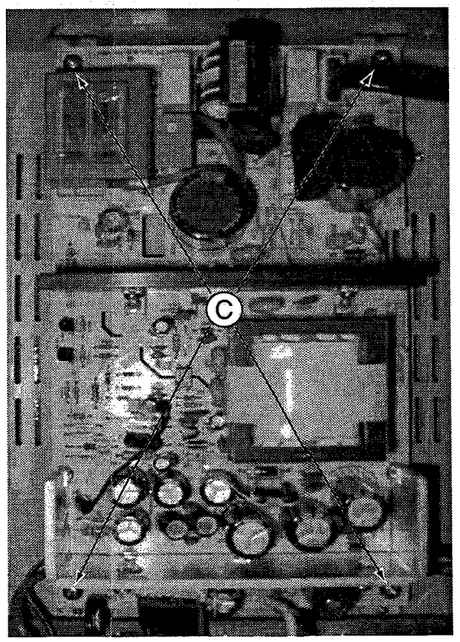


Figure 6

Dismantling of the Tuner PCB

1) Loosen 8 screw " D " at the back panel as shown in figure 7.

2) Loosen 6 screw " F " on the top of main board as shown in figure 8.

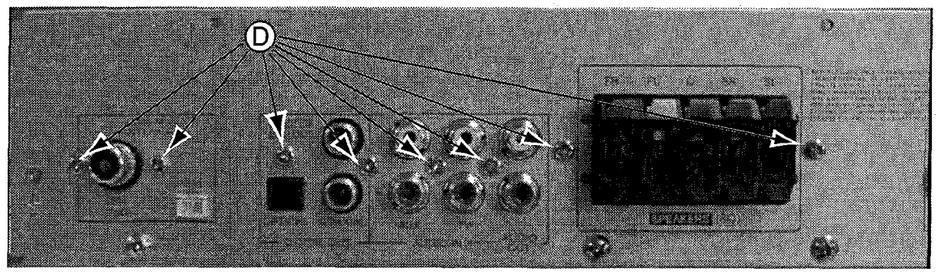


Figure 7

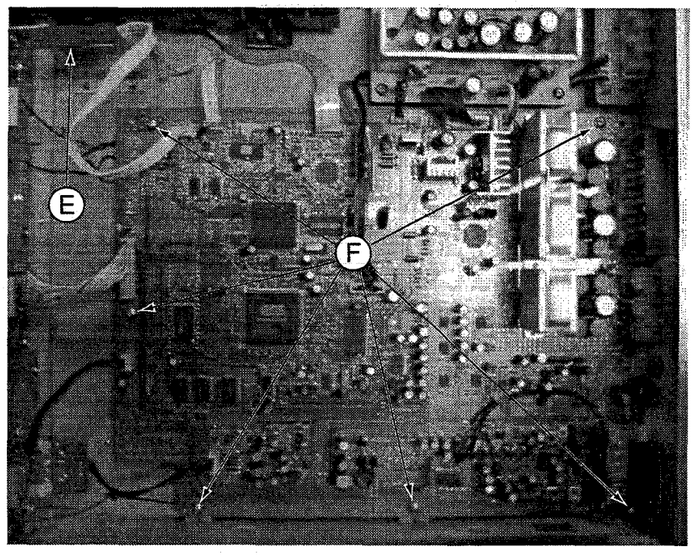
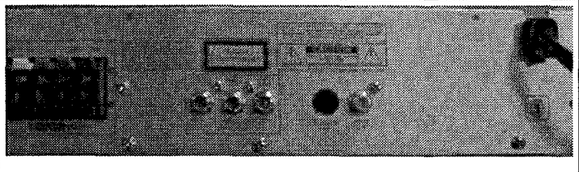


Figure 8

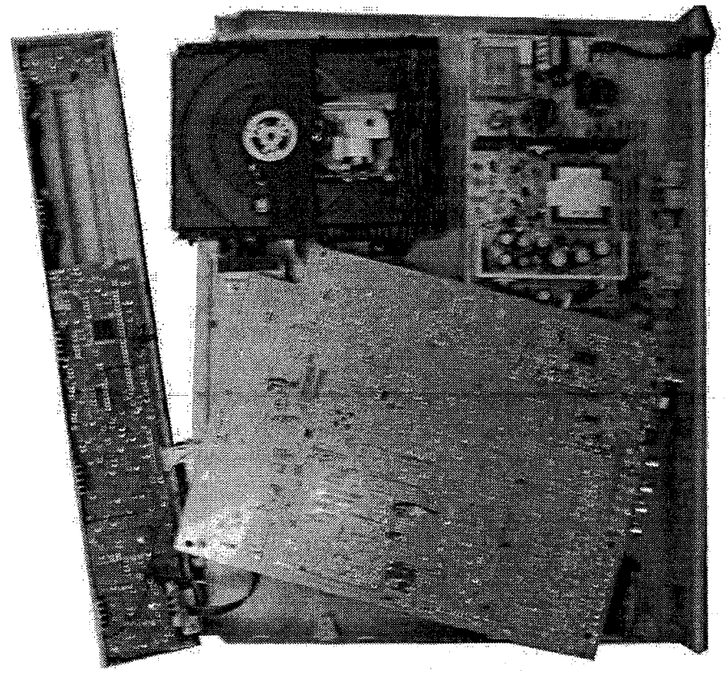


R.G.B Jack use for MX3660D/21H
MX3660D/30
MX3660D/37

Figure 9

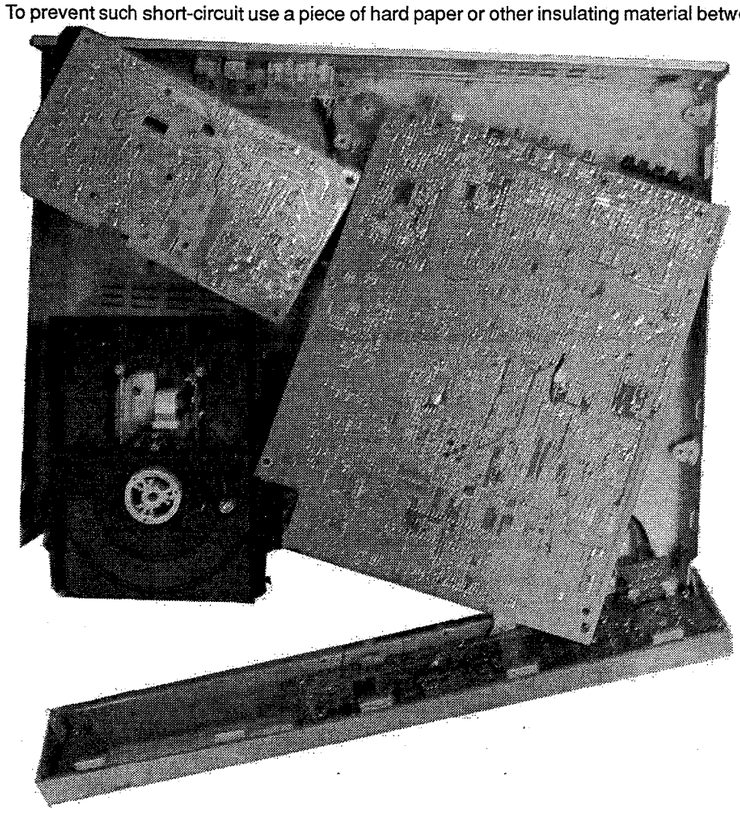
SERVICE POSITIONS

Service position A



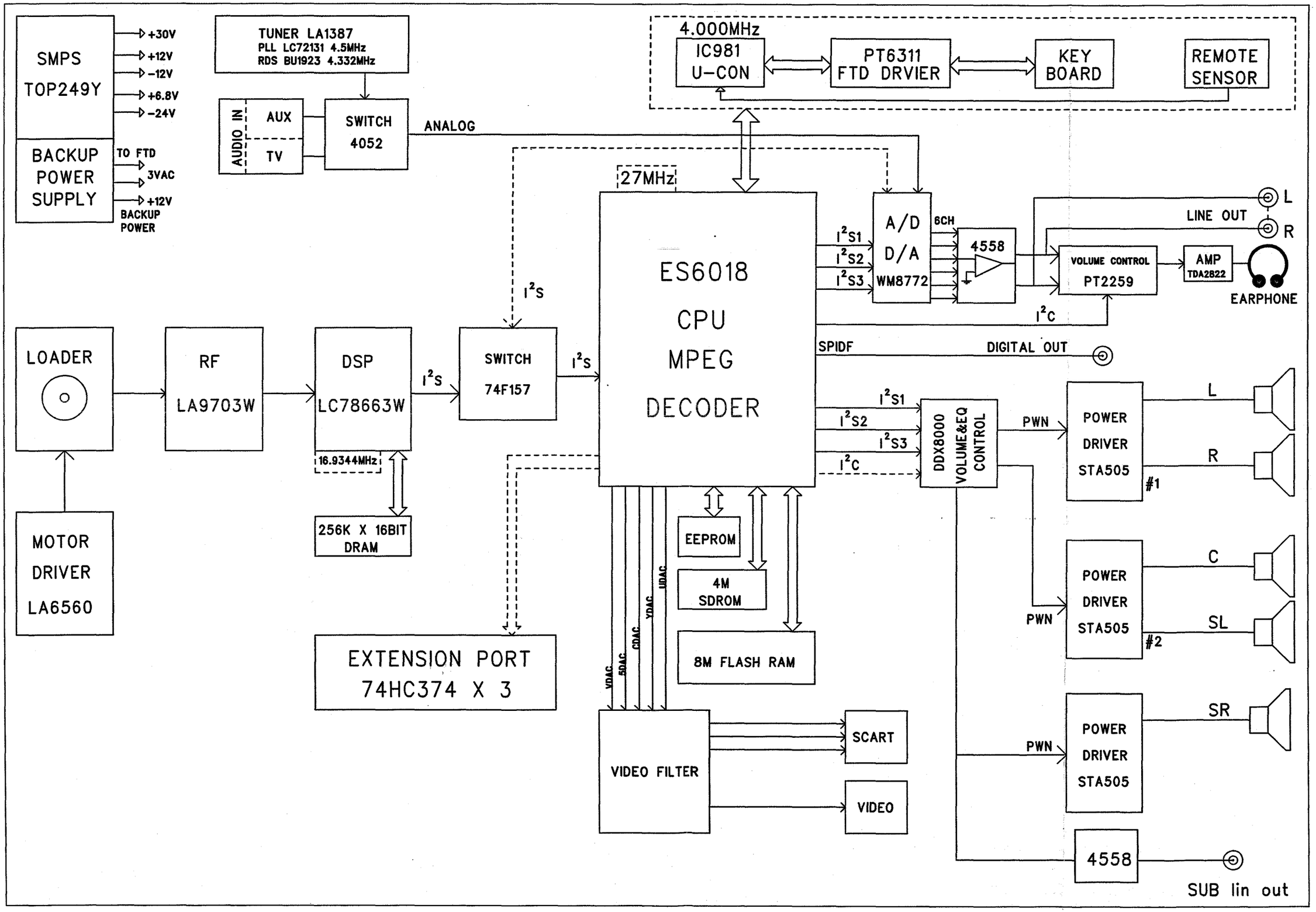
Note: In some service positions the components or copper patterns of one board may risk touching its neighbouring pc boards or metallic parts. To prevent such short-circuit use a piece of hard paper or other insulating material between them.

Service position B



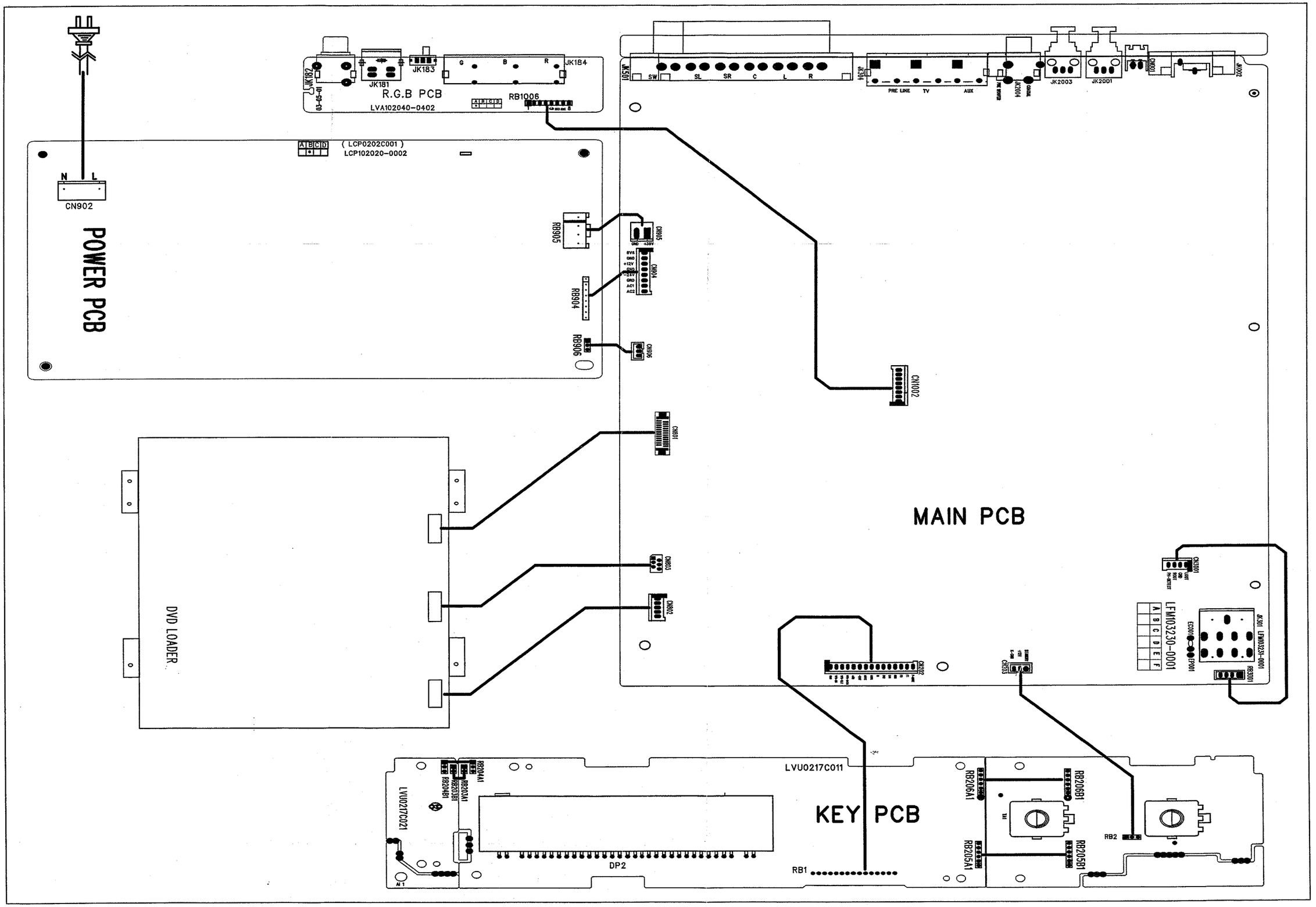
4-1

BLOCK DIAGRAM



4-2

WIRING DIAGRAM



KEY / LED BOARD

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Pin Connection 5-1
Circuit Diagram 5-2
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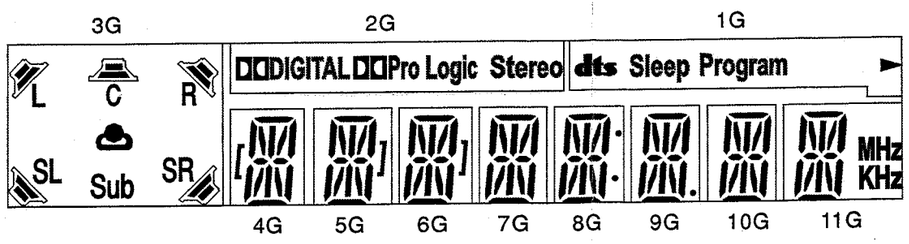
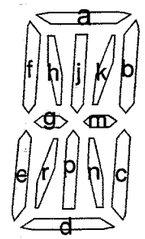
PCB Layout Bottom View 5-3
Electrical Parts List 5-4

FTD DISPLAY PIN ASSIGNMENT





(4G-11G)

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G
P1	Program	DIGITAL	R	a	a	a	a	a	a	a	a
P2	Sleep	ProLogic	C	b	b	b	b	b	b	b	b
P3	dts	Stereo	L	h	h	h	h	h	h	h	h
P4				j	j	j	j	j	j	j	j
P5			SL	k	k	k	k	k	k	k	k
P6			Sub	f	f	f	f	f	f	f	f
P7			SR	g	g	g	g	g	g	g	g
P8				m	m	m	m	m	m	m	m
P9	►			e	e	e	e	e	e	e	e
P10				r	r	r	r	r	r	r	r
P11				p	p	p	p	p	p	p	p
P12				n	n	n	n	n	n	n	n
P13				c	c	c	c	c	c	c	c
P14				d	d	d	d	d	d	d	d
P15				[	]	]		Col	Dp		MHz
P16											KHz

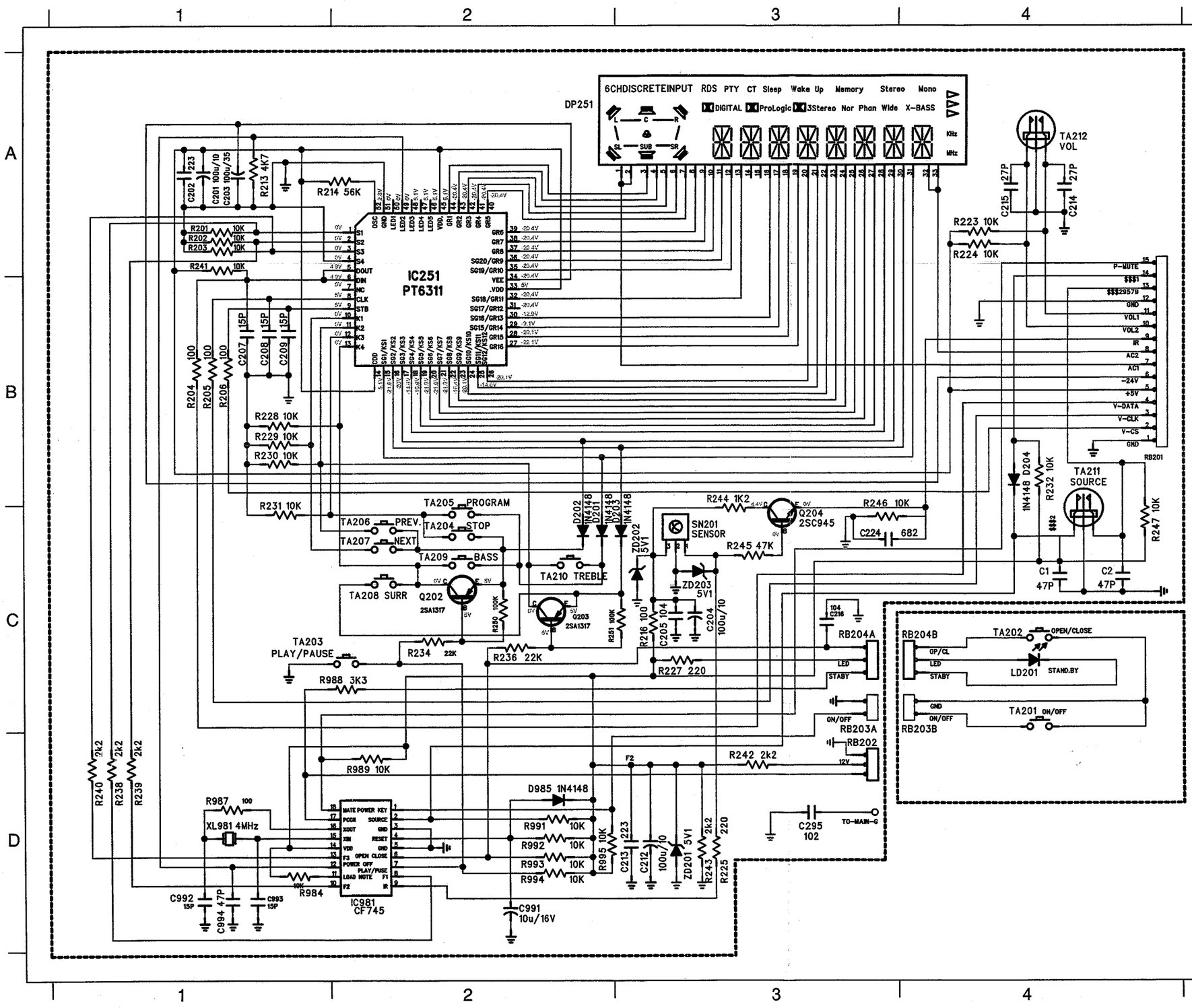
PIN CONNECTION

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
CONNECTION	F1	F2	NP	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	NC	NC	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	NP	F2	F2

Note
1. Fn: Filament pin
2. nG : Grid pin
3. Pn : Anode pin
4. NP : No Pin
5. NC : No Connection pin

5-2

CIRCUIT DIAGRAM

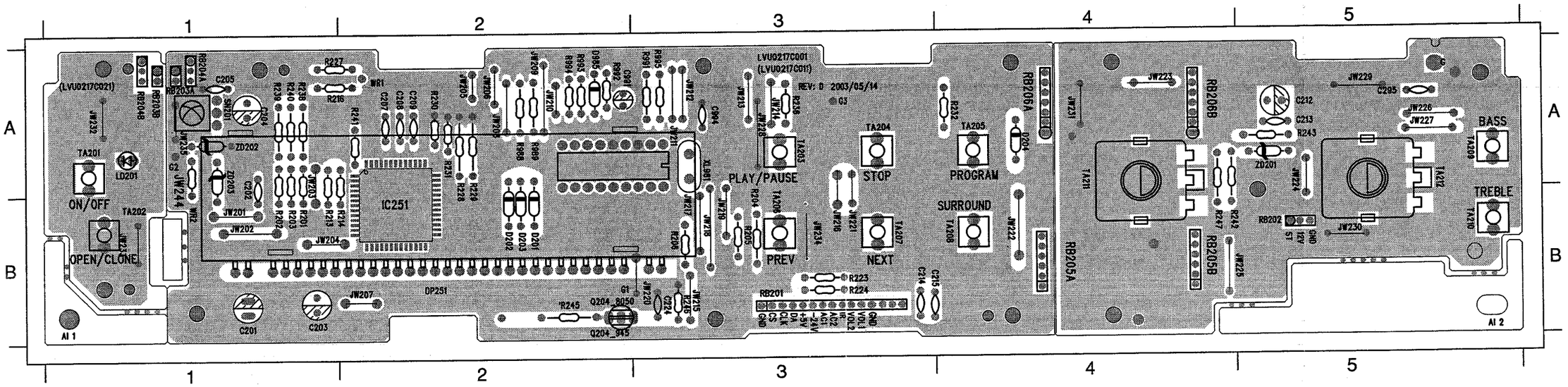


C201	A1	R242	D3
C202	A1	R244	B3
C203	A1	R225	D3
C204	C3	R245	C3
C205	C3	R246	C3
C207	B1	R250	C2
C208	B1	R251	C2
C209	B1	R984	D1
C212	D3	R987	D1
C213	D3	R988	C2
C214	A4	R989	D2
C215	A4	R991	D2
C216	C3	R992	D2
C295	D3	R993	D2
C991	D2	R994	D2
C992	D1	R995	D2
C993	D1	RB201	B4
C994	D1	RB202	D3
D201	C2	RB203A	C3
D202	C2	RB203B	C4
D203	C3	RB204A	C3
D204	B4	RB204B	C4
D985	D2	SN201	C3
DP251	A2	TA201	C4
IC251	B2	TA202	C4
IC981	D2	TA203	C1
LD201	C4	TA204	C2
Q202	C2	TA205	B2
Q203	C2	TA206	C2
Q204	C3	TA207	C2
R201	A1	TA208	C2
R202	A1	TA209	C2
R203	A1	TA210	C2
R204	B1	TA211	B4
R205	B1	TA212	A4
R206	B1	XL981	D1
R213	A1	ZD201	D3
R214	A2	ZD202	C3
R216	C3	ZD203	C3
R223	A4		
R224	A4		
R227	C3		
R228	B1		
R229	B1		
R230	B1		
R231	C1		
R232	B4		
R234	C2		
R236	C2		
R238	D1		
R239	D1		
R240	D1		
R241	A1		

5-3

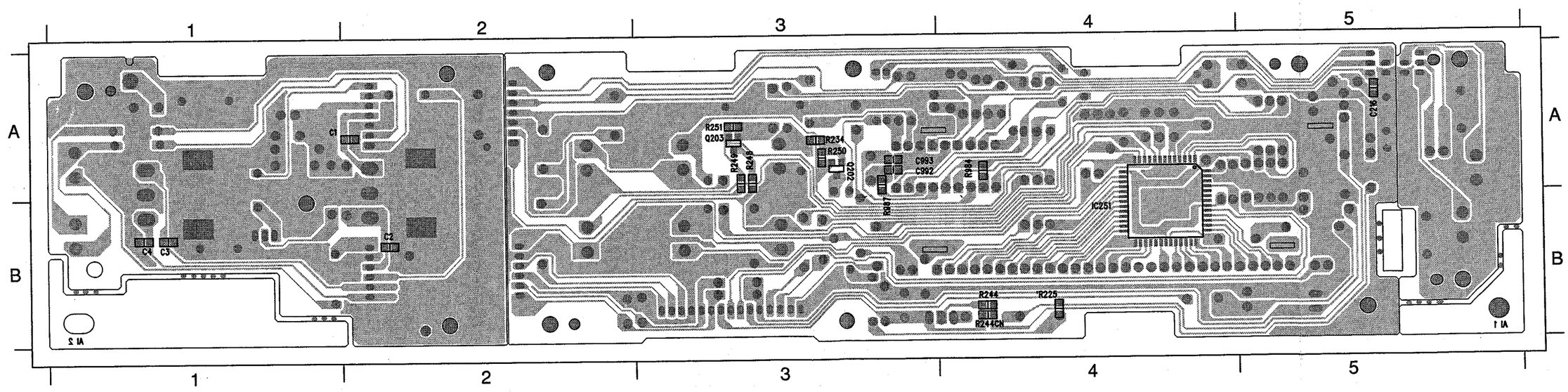
PCB LAYOUT TOP VIEW

C201 B1	C213 A5	D203 B2	JW204 B1	JW213 A3	JW222 B4	JW231 A4	R203 B1	R227 A1	R240 A1	R993 A2	RB205A B4	TA205 A4	ZD201 A5
C202 A1	C214 B3	D204 A4	JW205 A2	JW214 A3	JW223 A4	JW232 A1	R204 B3	R228 A2	R241 A2	R994 A2	RB205B B4	TA206 B3	ZD202 A1
C203 B1	C215 B4	D985 A2	JW206 A2	JW215 B3	JW224 A5	JW233 B1	R205 B3	R229 A2	R242 B4	R995 A3	RB206A A4	TA207 B3	ZD203 A1
C204 A1	C224 B3	DP251 B2	JW207 B2	JW216 B3	JW225 B5	JW234 B3	R206 B3	R230 A2	R245 B2	RB201 B3	RB206B A4	TA208 B4	
C205 A1	C295 A5	IC251 B2	JW208 A2	JW217 B3	JW226 A5	JW235 A1	R213 B1	R231 A2	R246 B3	RB202 B5	SN201 A1	TA209 A5	
C207 A2	C991 A2	LD201 A1	JW209 A2	JW218 B3	JW227 A5	JW244 A1	R214 B2	R232 A4	R988 A2	RB204B A1	TA201 A1	TA210 B5	
C208 A2	C994 A3	JW201 B1	JW210 A2	JW219 B3	JW228 A3	Q204 B3	R216 A1	R236 A3	R989 A2	RB203B A1	TA202 B1	TA211 A4	
C209 A2	D201 B2	JW202 B1	JW211 A3	JW220 B3	JW229 A5	R201 B1	R223 B3	R238 A1	R991 A3	RB203A A1	TA203 A3	TA212 A5	
C212 A5	D202 B2	JW203 A1	JW212 A3	JW221 B3	JW230 B5	R202 B1	R224 B3	R239 A1	R992 A2	RB204A A1	TA204 A3	XL981 A3	



PCB LAYOUT BOTTOM VIEW

C1 A2	C216 A5	C993 A3	Q202 A3	R225 B4	R244 B4	R249 A3	R251 A3	R987 B3			
C2 B1	C992 A3	IC251 B4	Q203 A3	R234 A3	R248 A3	R250 A3	R984 A4				



5-4

ELECTRICAL PARTS LIST - KEY / LED BOARD

MISCELLANEOUS

DP251	9965 000 12538	VFD DISPLAY
LD201	9965 000 17400	LED
SN201	9965 000 15935	IRT SENSOR RIM B38F
TA201	9965 000 20267	TACT SW SK1QN00048 160GF
TA202	9965 000 20267	TACT SW SK1QN00048 160GF
TA203	9965 000 20267	TACT SW SK1QN00048 160GF
TA204	9965 000 20267	TACT SW SK1QN00048 160GF
TA205	9965 000 20267	TACT SW SK1QN00048 160GF
TA206	9965 000 20267	TACT SW SK1QN00048 160GF
TA207	9965 000 20267	TACT SW SK1QN00048 160GF
TA208	9965 000 20267	TACT SW SK1QN00048 160GF
TA209	9965 000 20267	TACT SW SK1QN00048 160GF
TA210	9965 000 20267	TACT SW SK1QN00048 160GF
TA211	9965 000 12539	ROTARY ENCODER EC16B24-204
TA212	9965 000 12539	ROTARY ENCODER EC16B24-204
XL981	9965 000 12540	CRYSTAL 4.00 MHZ

DIODES

D201	4822 130 30621	1N4148
D202	4822 130 30621	1N4148
D203	4822 130 30621	1N4148
D204	4822 130 30621	1N4148
D985	4822 130 30621	1N4148
ZD201	4822 130 34233	BZX79-B5V1
ZD202	4822 130 34233	BZX79-B5V1
ZD203	4822 130 34233	BZX79-B5V1

TRANSISTORS & INTEGRATED CIRCUITS

Q202	9965 000 14175	2SA733Q,P
Q203	9965 000 14175	2SA733Q,P
Q204	4822 130 41198	2SC945P
IC251	9965 000 12550	IC PT6311(PTC)
IC981	9965 000 17447	IC S-CPU EM78P156ELP

Note : Only the parts mentioned in this list are normal service spare parts.

POWER BOARD

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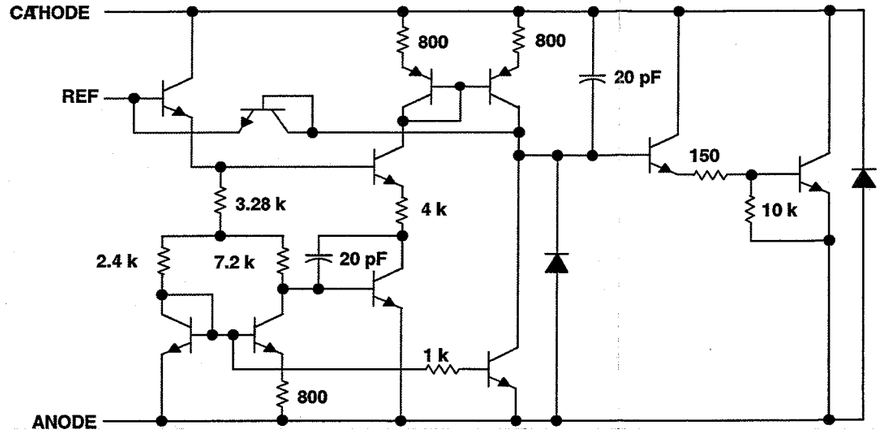
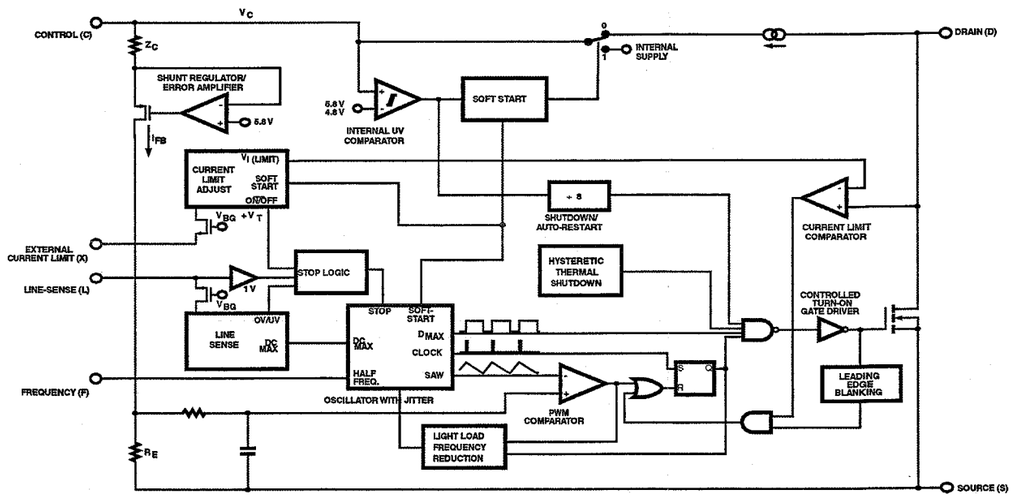
6-1

TL431 EQUIVALENT SCHEMATIC



TOP249 BLOCK DIAGRAM



VOLTAGE

IC903 (TOP249)

PIN NO	1	2	3	4	5	6
Voltage	2.98	0	-0.6	0	2.6	154

IC904 (TL431)

PIN NO	1	2	3
Voltage	2.48	0	5.1

SN901 (SFH615-3)

PIN NO	1	2	3	4
Voltage	27.7	26.6	2.5	16.7

Q903 (PN2222A)

PIN NO	b	c	e
Voltage	0	31.5	0

Q904 (TIP120)

PIN NO	b	c	e
Voltage	6.68	31.5	7.2

Q910 (2N7000)

PIN NO	b	c	e
Voltage	-14.1	-4.49	-14.1

Q912 (2N7000)

PIN NO	b	c	e
Voltage	14.1	4.49	14.1

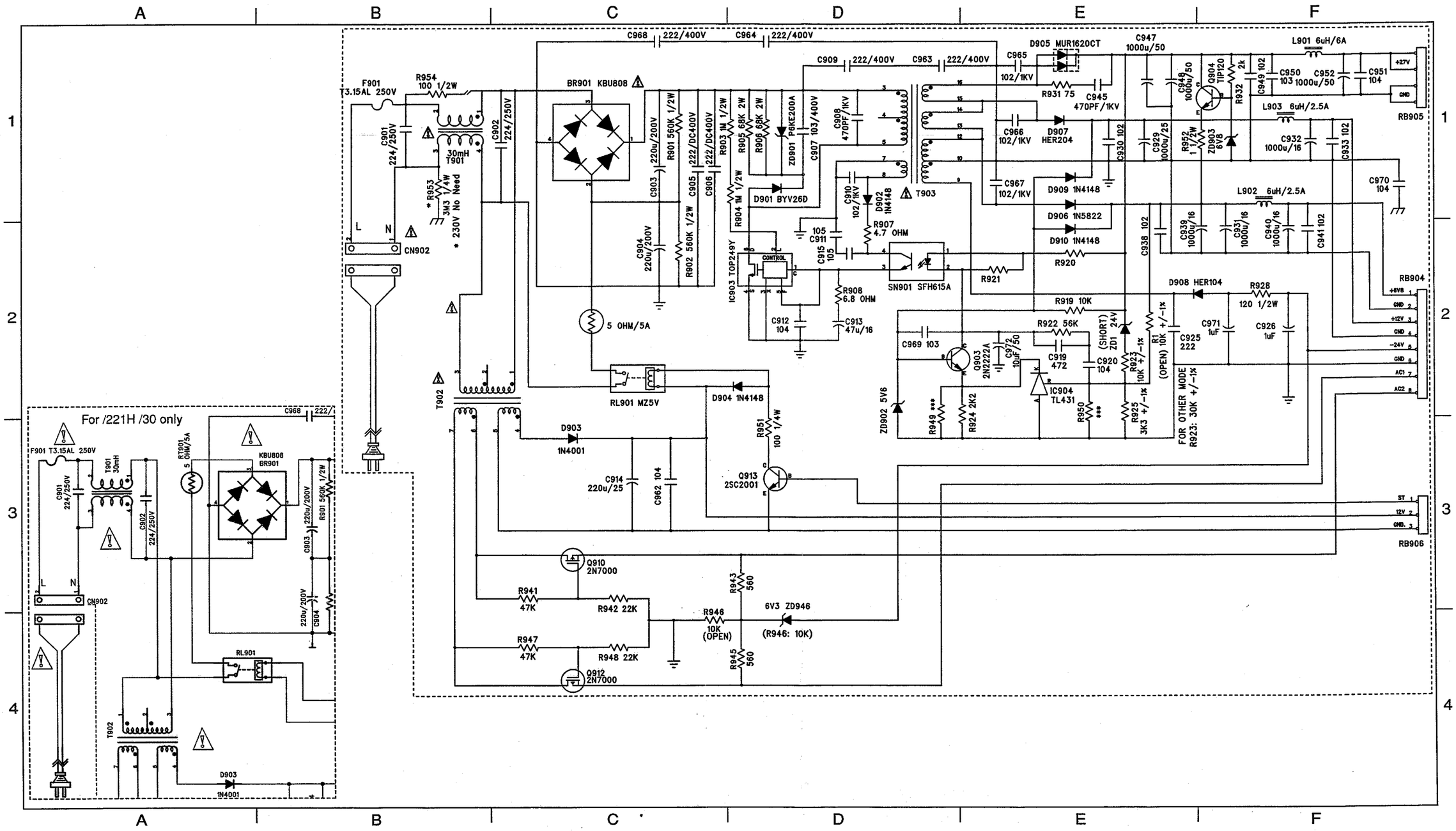
Q913 (2N7000)

PIN NO	b	c	e
Voltage	0.7	0.06	0

6-2

CIRCUIT DIAGRAM

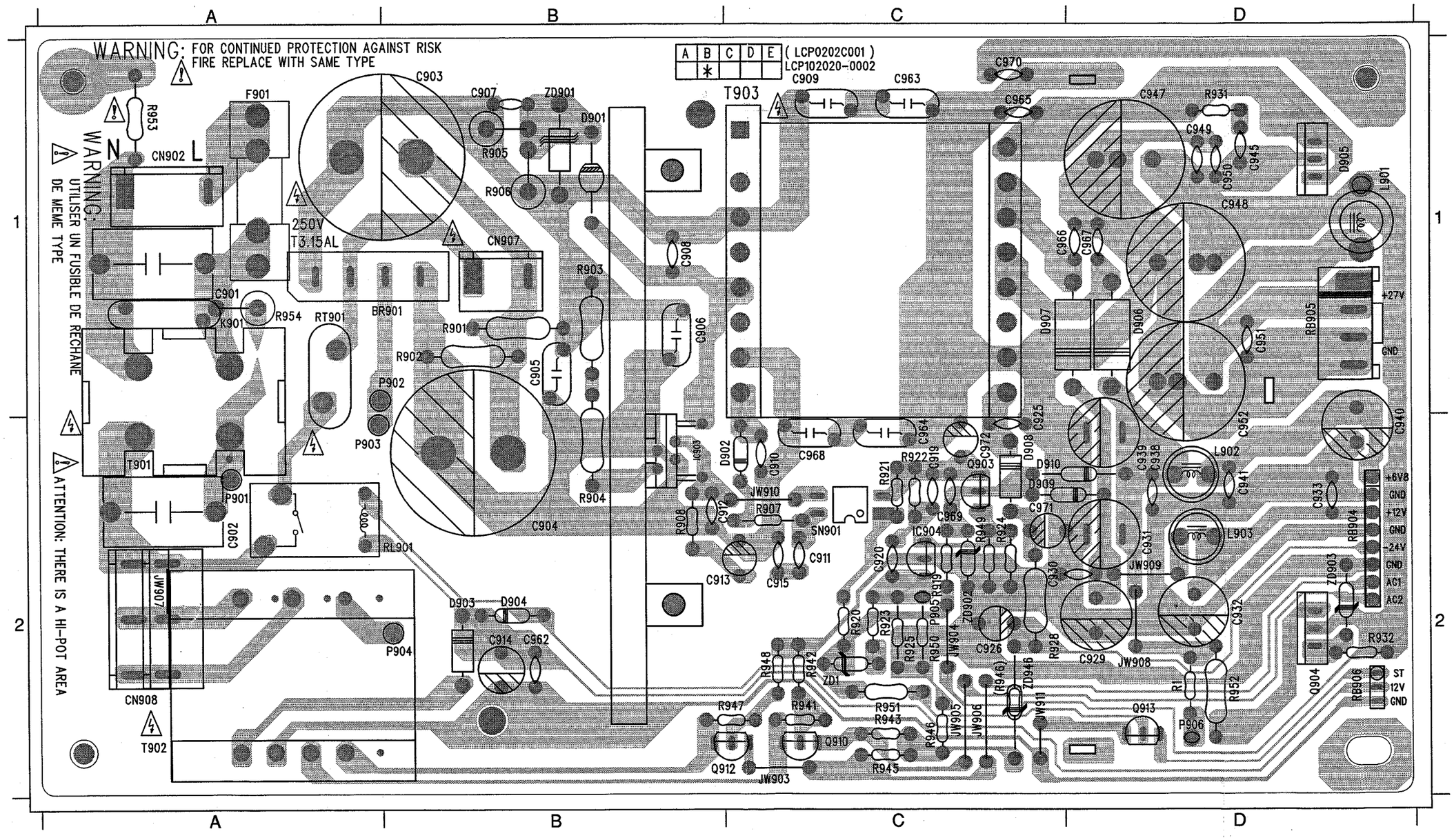
BR901	C1	C908	D1	C919	E2	C933	F1	C949	F1	C966	E1	D901	C1	D909	E1	Q903	E2	R903	C1	R921	E2	R941	C3	R952	E1	SN901	D2	ZD946	D4
C901	B1	C909	D1	C920	E2	C938	E2	C950	F1	C967	E1	D902	C1	D910	E2	Q904	F1	R904	D1	R922	E2	R942	C3	R953	B1	T901	B1		
C902	C1	C910	C1	C925	E2	C939	E2	C951	F1	C968	C1	D903	C3	F901	B1	Q910	C3	R905	D1	R923	E2	R943	D4	R954	B1	T902	B2		
C903	C1	C911	D2	C926	F2	C940	F2	C952	F1	C969	D2	D904	D3	IC903	D2	Q912	C4	R906	D1	R924	E2	R945	D4	RB904	F2	T903	D1		
C904	C2	C912	D2	C929	E1	C941	F2	C962	C3	C970	F1	D905	E1	IC904	E2	Q913	D3	R907	D2	R925	E2	R946	C4	RB905	F1	ZD1	E2		
C905	C1	C913	D2	C930	E1	C945	E1	C963	D1	C971	F2	D906	E2	L901	F1	R1	E2	R908	D2	R928	F2	R947	C4	RB906	F3	ZD901	D1		
C906	C1	C914	C3	C931	F2	C947	E1	C964	D1	C972	E2	D907	E1	L902	F1	R901	C1	R919	E2	R931	E1	R948	C4	RL901	C2	ZD902	D3		
C907	D1	C915	D2	C932	F1	C948	E1	C965	E1	CN902	B2	D908	E2	L903	F1	R902	C2	R920	E2	R932	F1	R951	D3	RT901	A3	ZD903	F1		



6-3

POWER PCB LAYOUT

BR901	A1	C909	C1	C925	C2	C940	D2	C962	B2	C971	C2	D906	D1	JW904	C2	L902	D2	Q904	D2	R905	B1	R924	C2	R946	C2	RB906	D2	ZD902	C2
C901	A1	C910	C2	C926	C2	C941	D2	C963	C1	C972	C2	D907	C1	JW905	C2	L903	D2	Q910	C2	R906	B1	R925	C2	R947	C2	RL901	B2	ZD903	D2
C902	A2	C911	C2	C929	D2	C945	D1	C964	C2	CN902	A1	D908	C2	JW906	C2	P901	A2	Q912	C2	R907	C2	R928	C2	R948	C2	RT901	A1	ZD946	C2
C903	B1	C912	B2	C930	C2	C947	D1	C965	C1	CN907	B1	D909	C2	JW907	A2	P902	B1	Q913	D2	R908	B2	R931	D1	R951	C2	SN901	C2		
C904	B2	C913	B2	C931	D2	C948	D1	C966	D1	D901	B1	D910	C2	JW908	D2	P903	A2	R1	D2	R919	C2	R932	D2	R952	D2	T901	A2		
C905	B1	C914	B2	C932	D2	C949	D1	C967	D1	D902	C2	F901	A1	JW909	D2	P904	B2	R901	B1	R920	C2	R941	C2	R953	A1	T902	A2		
C906	B1	C915	C2	C933	D2	C950	D1	C968	C2	D903	B2	IC903	B2	JW910	C2	P905	C2	R902	B1	R921	C2	R942	C2	R954	A1	T903	C1		
C907	B1	C919	C2	C938	D2	C951	D1	C969	C2	D904	B2	IC904	C2	JW911	C2	P906	D2	R903	B1	R922	C2	R943	C2	RB904	D2	ZD1	C2		
C908	B1	C920	C2	C939	D2	C952	D2	C970	C1	D905	D1	JW903	C2	L901	D1	Q903	C2	R904	B2	R923	C2	R945	C2	RB905	D1	ZD901	B1		



6-4

ELECTRICAL PARTS LIST - POWER BOARD

MISCELLANEOUS

BR901	9965 000 14176	⚠	BRIDGE KBU808 8A 800V
CN902	9965 000 15936	⚠	CONNECTOR 4PIN P=3.96MM
F901	9965 000 17388	⚠	FUSE 3.15A 250V SLOW /21H/30
F901	9965 00012637	⚠	FUSE 3.15A 250V SLOW /37
L901	9965 000 16693		INDUCTOR 6UH 10.5TS 6A
L902	9965 000 16694		INDUCTOR 6UH 13.5TS 2UEW
L903	9965 000 16694		INDUCTOR 6UH 13.5TS 2UEW
RL901	9965 000 16331	⚠	RELAY GJ-SH-112DM /21H/30
RL901	9965 000 15937	⚠	RELAY GJ-SH-112DM /37
RT901	9965 000 17394	⚠	NTC 5R 5A
SN901	9965 000 15769	⚠	PHOTO COUPLER SFH615A-3
T901	9965 000 17395	⚠	AC FILTER 1.7A L1:86TS L2:86TS
T902	9965 000 18050	⚠	PWR TRANSF 230V EI-35 /21H/30
T902	9965 000 19196	⚠	PWR TRANSF 120V EI-35 /37
T903	9965 000 20580	⚠	PWR TRANSF EI-42 50W /21H/30
T903	9965 000 18343	⚠	PWR TRANSF EI-42 LI-YOU /37

CAPACITORS

C901	9965 000 16687	⚠	0.22UF 275V X2P 20%
C902	9965 000 16687	⚠	0.22UF 275V X2P 20%
C903	9965 000 20258		COND ELECT 220UF 200V 20% 105C
C904	9965 000 20258		COND ELECT 220UF 200V 20% 105C
C905	9965 000 20259	⚠	COND SAFETY 0.0022UF 250V 20%
C906	9965 000 20259	⚠	COND SAFETY 0.0022UF 250V 20%
C907	9965 000 18042		COND DISC 0.01UF 1KV 20%
C908	9965 000 20260		COND DISC 470PF 1KV 10% 125'C
C909	9965 000 20259	⚠	COND SAFETY 0.0022UF 250V 20%
C910	9965 000 20261		COND DISC 0.001UF 1KV 20%
C925	9965 000 20261		COND DISC 0.001UF 1KV 20%
C929	9965 000 16354		COND ELECT 1000UF 25V 20%
C931	9965 000 20262		COND ELECT 1000UF 16V 20% 85'C
C932	9965 000 20263		COND ELECT 1000UF 16V 20%
C939	9965 000 20263		COND ELECT 1000UF 16V 20%
C940	9965 000 20263		COND ELECT 1000UF 16V 20%
C945	9965 000 20264		COND DISC 470PF 1KV 10%
C947	9965 000 20265		COND ELECT 1000UF 50V 20%
C948	9965 000 20265		COND ELECT 1000UF 50V 20%
C952	9965 000 20265		COND ELECT 1000UF 50V 20%
C963	9965 000 20259	⚠	COND SAFETY 0.0022UF 250V 20%
C964	9965 000 20259	⚠	COND SAFETY 0.0022UF 250V 20%
C965	9965 000 20261		COND DISC 0.001UF 1KV 20%
C966	9965 000 20261		COND DISC 0.001UF 1KV 20%
C967	9965 000 20261		COND DISC 0.001UF 1KV 20%
C968	9965 000 20259	⚠	COND SAFETY 0.0022UF 250V 20%

RESISTORS

R905	9965 000 17393	68K 2W 5% W/KINK
R906	9965 000 17393	68K 2W 5% W/KINK
R928	9965 000 16691	120R 1/2W
R952	9965 000 12517	1 OHM 1/2W 5%

DIODES

D901	4822 130 11044	BYV26D
D902	4822 130 30621	1N4148
D903	4822 130 31438	1N4001G
D904	4822 130 30621	1N4148
D905	9965 000 14186	BRIDGE MUR1620CT 8A 200V
D906	5322 130 32677	1N5822
D907	9965 000 14187	DIODE HER204 2A/300V 50NS
D908	9965 000 14188	DIODE HER104 1A/300V 50NS
D909	4822 130 30621	1N4148
D910	4822 130 30621	1N4148
ZD1	9965 000 17373	DIODE ZENR 23.6-24.7V 0.5W
ZD901	9965 000 14209	DIODE P6KE200A
ZD902	9965 000 15944	DIODE ZENR 5.6-5.9V 0.5W
ZD903	4822 130 80272	MTZJ7.5C
ZD946	4822 130 34167	BZX79-B6V2

TRANSISTORS & INTEGRATED CIRCUITS

Q903	9965 000 17396	XISTR NPN PN2222A FAIRCHILD
Q904	9965 000 20581	XISTR NPN TIP122 TO-220 SGS-TH
Q910	9965 000 16497	MOS FET 2N7000TA 60V/0.2A
Q912	9965 000 16497	MOS FET 2N7000TA 60V/0.2A
Q913	4822 130 41651	XISTR NPN 2SC2001L
IC903	9965 000 14189	IC TOP249Y 250W
IC904	9965 000 17387	IC TL431

Note : Only the parts mentioned in this list are normal service spare parts.

DVD LOADER

It is not recommended for component repair on this Module but to replace the major assembly when it becomes defective. Therefore limited service parts list are published in this chapter.

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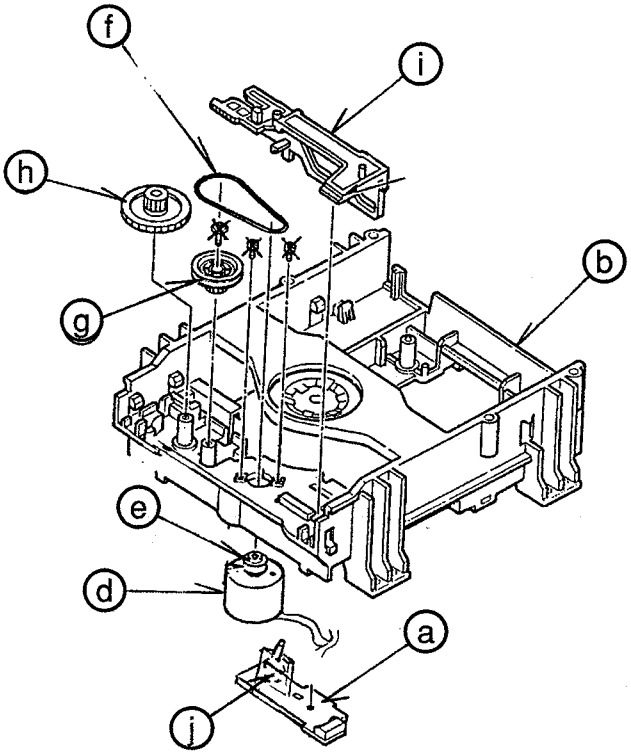
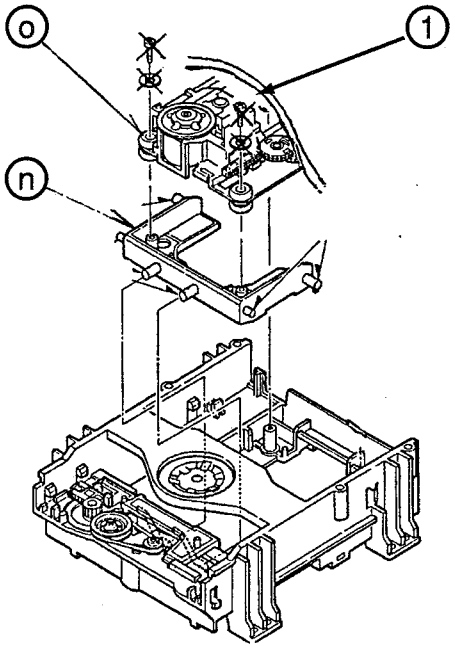
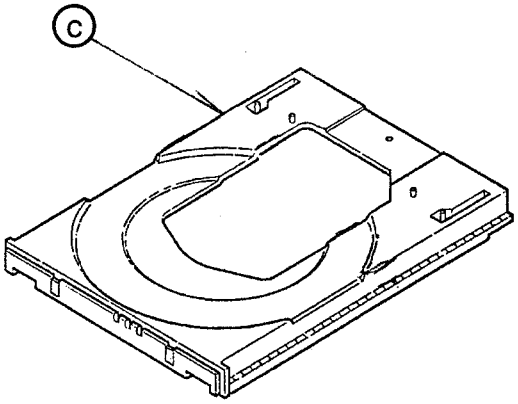
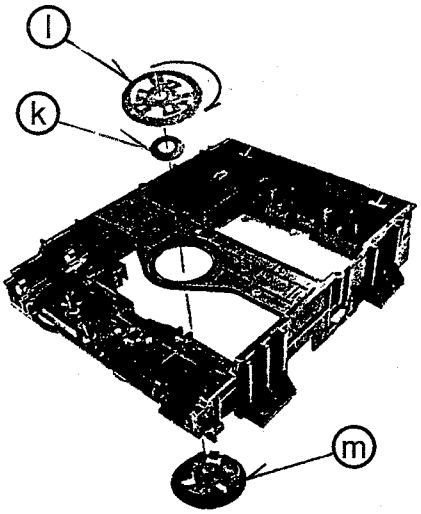
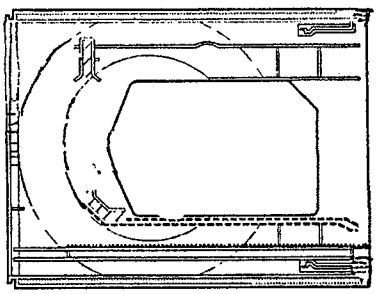
Explorer View - DVD Loader

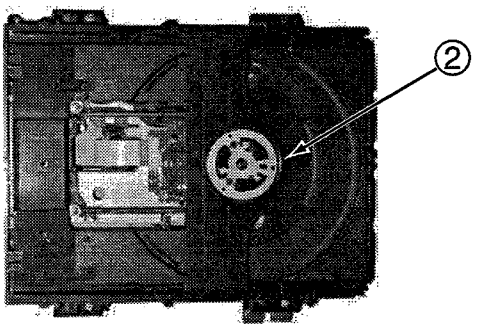












Without DVD Driver

MECHANICAL PARTS LIST - DVD LOADER

	9965 000 20233	DVD LOADER (DVD-KDA898SP)
1	9965 000 20250	TRAVERSE MECHANISM
2	9965 000 20251	LOADING MECHANISM
c	9965 000 20252	TRAY
d	9965 000 20253	MOTOR LOADING DC 0.2W
e	9965 000 20254	PULLEY MOTOR
f	9965 000 20255	BELT SQUARE
j	9965 000 20256	SWITCH LEVER
o	9965 000 20257	SPACER MECHA

Note: Only the parts mentioned in this list are normal service spare parts.

MAIN BOARD

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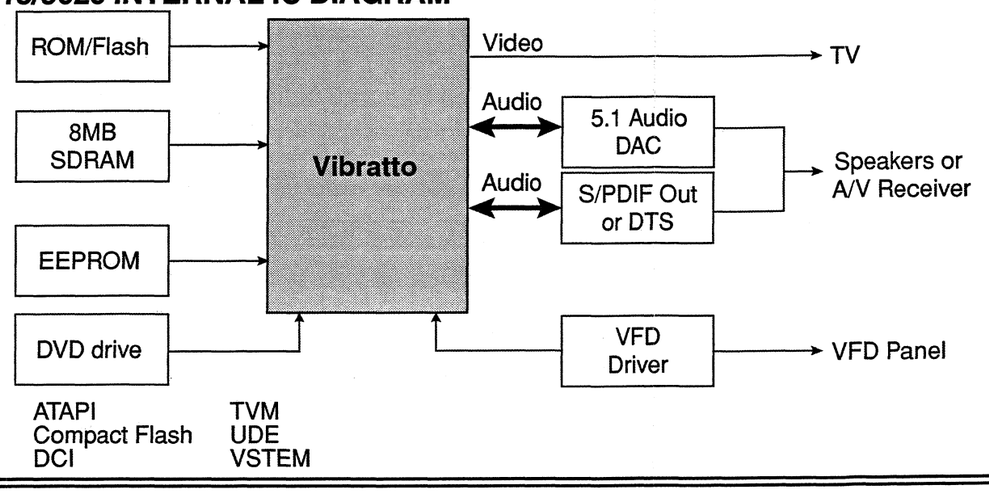
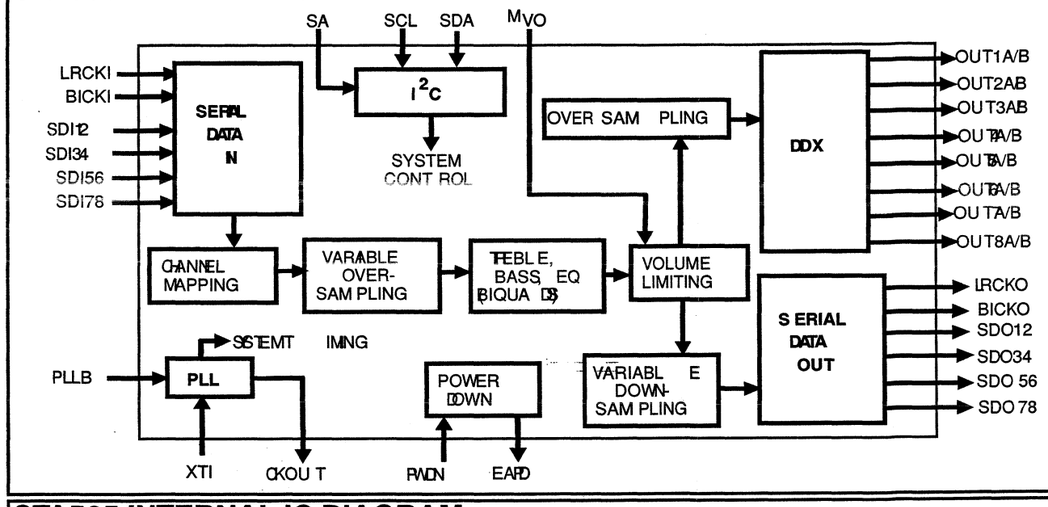
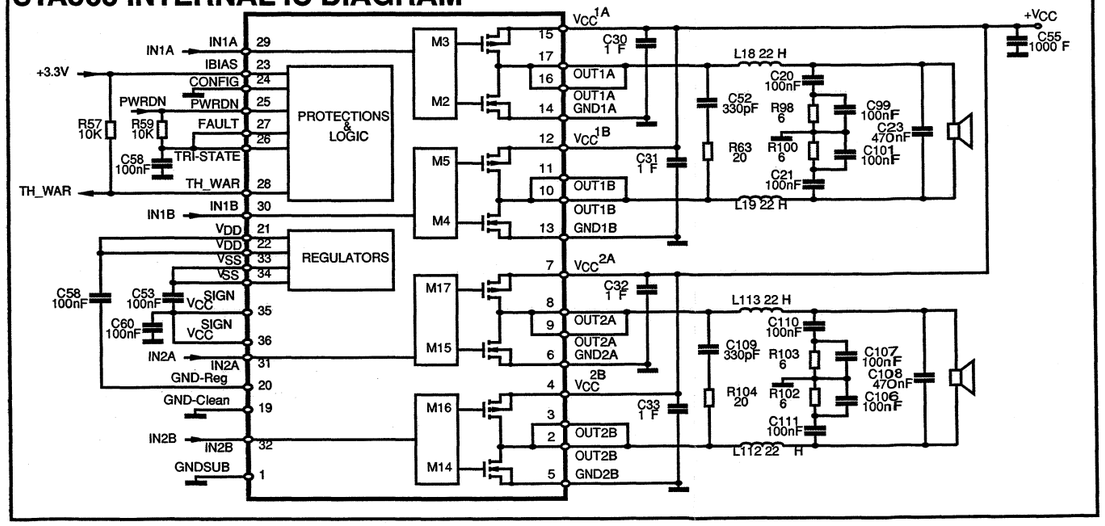
6018/6028 INTERNAL IC DIAGRAM



STA308 INTERNAL IC DIAGRAM



STA505 INTERNAL IC DIAGRAM



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VOLTAGES

IC101 (LA1837)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	3.5	9.78	3.5	3.5	0	4.96	4.94	9.77	9.76	1.4	0.94	0	0.05	8.67	8.68	4.27	4.27	4.26	4.26	3.19
PIN NO	21	22	23	24	25	26	27	28	29	30										
Voltage	3.19	2.8	3.24	0.33	0.02	3.59	3.59	2.58	3.58	1.7										

IC152 (LC72131M)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	2.5	0.17	0.17	4.2	4.96	4.18	0.05	0.05	0.05	4.95	0.01	4.95	0.01	2.4	4.95	1.05	1.05	3.47	0	2.45

IC301 (PT5228)

PIN NO	1	2	3	4	5	6	7	8
Voltage	2.8	0	2.8	0	2.8	2.8	2.8	6

IC303 (PT2259)

PIN NO	1	2	3	4	5	6	7	8
Voltage	4.2	4.2	0	4.4	4.4	8.8	4.2	4.2

IC304 (4558)

PIN NO	1	2	3	4	5	6	7	8
Voltage	0	0	0	-9.24	0	0	0	6.98

IC305 (4558)

PIN NO	1	2	3	4	5	6	7	8
Voltage	0	0	0	-9.24	0	0	0	6.97

IC306 (4558)

PIN NO	1	2	3	4	5	6	7	8
Voltage	0	0	0	-9.24	0	0	0	6.97

IC307 (4558)

PIN NO	1	2	3	4	5	6	7	8
Voltage	0	0	0	-9.24	0	0	0	6.97

IC401 (STA308)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	0	3.3	0	2.68	0	0.8	0.8	0.8	1.65	1.65	3.36	0	2.68	2.2	0	0	4.65	4.65	1.28
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	1.24	2.68	0	3.3	1.67	2.68	0	3.3	0	0	0	0	0.22	0.22	0	0	2.68	0.22	0.22	0.22
PIN NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Voltage	0.22	0.22	0.22	0	0	2.68	0.22	0.22	0.22	0.22	3.3	3.3	0	2.5	1.68	1.68	1.25	1.2	3.3	0
PIN NO	61	62	63	64																
Voltage	0	1.2	0	3.3																

IC501 (STA505)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	1.93	1.93	31.5	0	0	31.4	-0.8	-0.8	1.8	1.8	31.5	0	0	31.5	0.2	0.2	0	0	0.02
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Voltage	5	5	3.35	0	3.35	3.34	3.35	3.34	0.22	0.22	0.22	0.22	26.4	26.5	31.5	31.5				

IC502 (STA505)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	1.93	1.93	31.5	0	0	31.4	-0.8	-0.8	1.8	1.8	31.5	0	0	31.5	0.2	0.2	0	0	0.02
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Voltage	5	5	3.35	0	3.35	3.34	3.35	3.34	0.22	0.22	0.22	0.22	26.4	26.5	31.5	31.5				

IC503 (STA505)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	1.93	1.93	31.5	0	0	31.4	-0.8	-0.8	1.8	1.8	31.5	0	0	31.5	0.2	0.2	0	0	0.02
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Voltage	5	5	3.35	0	3.35	3.34	3.35	3.34	0.22	0.22	0.22	0.22	26.4	26.5	31.5	31.5				

IC801 (LA9703)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	2.7	5	3.5	3.5	3.5	3.5	3.5	0	2.5	2.5	0	0	2.5	2.5	4.9	0.19	3.8	0.2	0	0
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	0	3.3	0	0	0	0	0	3.3	5	0	3.3	1	1.34	1	1.7	1.7	1.7	2.2	1.73	1.7
PIN NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Voltage	1.8	1.7	1.7	1.7	1.2	1.3	2.5	3.3	1.2	2.7	1.7	2.6	1.6	2.6	2.6	0	0.6	2.5	2.5	1.8
PIN NO	61	62	63	64																
Voltage	2.8	2.86	5	2.7																

IC802 (LC78663)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	1.7	1.4	0.33	1.8	2.4	1.3	0	1.7	0	1.7	0	1.67	1.69	1.67	1.64	1.7	3.4	0	1.7	1.7
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	1.7	1.7	1.7	1.8	0.98	1.34	1.7	1.7	1.1	1.7	1.7	1.7	1.79	2.7	0	1.3	3.3	3.3	3.3	3.1
PIN NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Voltage	3.3	1.6	1.5	3.3	3.1	0	3.3	1.79	3.4	0	2	1.99	1.96	1.96	1.96	1.95	1.9	0.08	0.4	1.19
PIN NO	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Voltage	3.3	3.3	3.3	3.3	3.3	3.35	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0.29	1.47	1.6	1.99
PIN NO	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Voltage	0.9	1.7	1.6	0	1.68	1.1	1.7	3.4	0	0	0	3.3	0	3.3	3.3	3.3	0	0	3.3	3.3
PIN NO	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Voltage	3.3	3.3	3.3	1.7	1.65	2.7	0	1.4	1.4	1.4	0	0.02	1.65	1.7	1.4	1.4	0.3	0	0	0
PIN NO	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
Voltage	2.1	0	0.3	0	0	2.7	0	1.2	1.1	1.2	2.7	0.02	3.4	1.7	1.7	0	0	0	0	3.4
PIN NO	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
Voltage	0	1.7	3.4	0	0.8	0.8	0	0	0	0.8	0	0.8	0.8	0	3.4	0.8	0.8	0.8	0.8	3.4
PIN NO	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176				
Voltage	0.8	0.7	0.7	0.8	3.4	0	0	0	0	3.4	0	3.4	1.8	0	2.7	0				

IC803 (LA6560)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	3.3	3.3	8.97	0.02	0.02	4.13	4.14	3.9	4.4	4.5	3.8	4.1	4.2	8.98	1.69	0	1.7	1.7	1.7	1.9
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Voltage	1.7	1.7	1.58	0.7	1.7	0.9	0.2	1.7	5	1.7	1.7	1.7	1.7	3.3	2.8	0				

IC804 (16256)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	3.3	1.3	1.3	1.3	1.3	3.3	1.3	1.3	1.3	1.3	0	0	3.3	3.3	0	3.3	3.3	3.3	3.3	3.3
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0.7	1.6	0.6	0.6	1.6	0	1.6	1.6	1.6	1.6	0

IC807 (LVC32)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Voltage	0	3.3	3.4	3.1	3.1	3.1	0	3.4	1.5	3.3	3.3	0.06	3.3	3.4

IC808 (HC14)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Voltage	3.1	0.28	0.26	3.1	0	3.4	0	0.05	3.3	3.3	0.06	0.06	0	3.3

IC809 (LM358)

PIN NO	1	2	3	4	5	6	7	8
Voltage	0	2.6	2.6	0	1.7	1.7	1.7	8.97

IC1001 (MX29F080TC-90CE)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	1.16	1.3	0	1.1	2	1.3	1.6	1.6	3	5	0	4.9	1	1.9	1.6	1.5	1.6	1.2	1.6	1.54
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	1.2	1.8	0.15	0.1	2	1.85	1.9	1.85	0	0	5	1.84	1.8	1.8	1.85	0.8	3	3.3	0	0

8-3

VOLTAGES

IC1003 (6028)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	3.3	1.5	1.5	1.1	1.47	1.48	1.5	0	2.8	1.9	0.9	1.7	1.7	1.3	1.8	1.1	0	3.3	1.4	1.4
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	1.2	0.8	0	5	0.6	0	3.3	1.9	1.3	1.9	0.6	0.8	0.8	0	2.8	0.8	0.8	0	1.03	1.6
PIN NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Voltage	1.6	0	0	2.8	0.6	0.6	0.6	0	1.7	1.12	3.3	0	0.04	0.5	0.4	1.5	0.09	1.6	3.3	0
PIN NO	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Voltage	1.5	1.3	0.7	0.03	0.13	0.12	0	3.3	3.1	3.3	3.1	3	0.2	0.01	3.3	0	1.02	0.9	1.3	1.1
PIN NO	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Voltage	0.12	0.94	2.8	0	1.02	1.1	1.1	1.1	1.1	0.9	0	3.3	0.8	1.3	1.3	0.2	3.1	0	3.3	2.8
PIN NO	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Voltage	0.05	1.4	0	3.3	2.1	0.7	1.3	1.2	1.9	1.19	3.3	0	0.7	0.3	0.01	1.03	5	5	4.8	0
PIN NO	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
Voltage	2.8	0	3.3	0	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	0.02	3.3	3.3	3.4	0.01	0	2.8	0.98
PIN NO	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
Voltage	3.3	0	0.01	3.3	5	3.3	0	0	3.3	3.3	0	3.3	3.3	3.3	3.3	0	3.3	0	3.3	4.7
PIN NO	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Voltage	5	4.9	0	3.3	4.9	4.9	4.9	4.9	3.4	3.2	0	2.8	3.3	3.3	3.3	3.1	0	1.7	1.6	1.6
PIN NO	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
Voltage	1.6	1.6	3.34	0	1.6	1.6	1.6	1.6	1.7	1.7	1.6	0	3.3	1.7	1.6	1.6	1.6	3.3	3.3	0
PIN NO	201	202	203	204	205	206	207	208												
Voltage	3.3	0.5	0.5	0.1	1.8	1.8	1.2	0												

IC1004 (4MX16Y3VTM)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	3.3	1.12	3.33	1.04	1.31	0	1.2	1.2	3.33	1.02	1.04	0	1.14	3.33	0.05	3.12	3.14	3.05	2.86	0.17
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	0	0.13	0.04	0.47	0.38	1.52	3.33	0	1.48	1.6	1.49	1.33	0.66	0.04	0.13	1.27	3.32	1.33	0.05	0.01
PIN NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
Voltage	0	1.02	3.33	1.07	1.06	0	0.87	0.84	3.33	1.29	1.27	0	1.42	0						

IC1005 (24C02)

PIN NO	1	2	3	4	5	6	7	8												
Voltage	0	0	0	0	4.66	4.66	0	4.96												

IC1006 (74F374D)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	4.2	1.75	1.8	4.1	4.1	1.8	1.8	3.7	0	3.3	4.1	1.9	1.9	3.6	4.3	1.9	2	4.2	5

IC1007 (74F374D)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	4.2	1.9	1.9	0.2	4.2	1.8	1.9	4.1	0	3.3	0.17	1.8	1.8	0.2	4.2	1.8	0	4.2	5

IC1008 (74F374D)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	0.2	1.9	2	4.2	0	1.9	1.9	4.2	0	3.3	4.4	1.9	1.9	3.8	3.8	1.9	1.9	0.16	5

IC1009 (F157A)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Voltage	0.17	1.7	1.7	1.9	1.1	1.6	1.3	0	1.93	1.65	1.67	3.89	0.84	1.85	0	5				

IC1010 (WM8772)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	1.27	1.64	1.65	3.31	0	0.83	0.8	0.84	1.71	3.79	3.78	0.16	0.01	1.64	0	3.29	1.64	1.64	1.63
PIN NO	21	22	23	24	25	26	27	28												
Voltage	1.64	1.64	1.64	1.64	1.64	1.65	0	3.29												

IC1012 (B1117N)

PIN NO	1	2	3	4																
Voltage	1.58	2.82	5	2.82																

IC1014 (TC74HC04AFN)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
Voltage	3.3	0	0	5	2.5	1.9	0	1.5	1.9	5	0	5	0	5						

IC3001 (TC4052BFN)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Voltage	0	0	0	0	0	0	-7.16	0	4.6	4.59	0	0	0	0	0	7.19				

IC3002 (4558)

PIN NO	1	2	3	4	5	6	7	8												
Voltage	0	0	0	-10.5	0	0	0	11.1												

IC4001 (4558)

PIN NO	1	2	3	4	5	6	7	8												
Voltage	0	0	0	-9.25	0.04	0.05	0	6.98												

IC9001 (BA05T)

PIN NO	1	2	3																	
Voltage	6.8	0	5																	

IC9002 (RT9164-33CLR)

PIN NO	1	2	3																	
Voltage	5.7	0	3.3																	

IC9003 (BA05T)

PIN NO	1	2	3																	
Voltage	6.8	0	5																	

Q001 (2SK192A-Y/GR)

PIN NO	b	c	e	
Voltage	0	0	10.13	

Q101 (2SC1675L)

PIN NO	b	c	e	
Voltage	0.75	10	0.03	

Q102 (2SC1675L)

PIN NO	b	c	e	
Voltage	0.75	10.05	0.03	

Q103 (2SA733Q)

PIN NO	b	c	e	
Voltage	10.5	11	11.27	

Q104 (2SC945P)

PIN NO	b	c	e	
Voltage	0.63	0.01	0	

Q105 (2SC945P)

PIN NO	b	c	e	
Voltage	0.04	8.67	0	

Q301 (2SC945P)

PIN NO	b	c	e	
Voltage	6.5	11.4	5.87	

Q302 (2SC2878-A)

PIN NO	b	c	e	
Voltage	-1.6	5.8	0	

Q303 (2SC2878-A)

PIN NO	b	c	e	
Voltage	-1.4	0	0	

Q304 (2SC2678-A)

PIN NO	b	c	e	
Voltage	-1.45	0	0	

Q305 (2SA733Q)

PIN NO	b	c	e	
Voltage	0	-1.4	0.14	

Q401 (2SC2001L)

PIN NO	b	c	e	
Voltage	3.35	3.35	2.68	

Q801 (CM5051-0)

PIN NO	b	c	e	
Voltage	3.8	1.8	4.4	

Q802 (CM5051-0)

PIN NO	b	c	e	
Voltage	0.05	0	5.03	

Q803 (CM5783GR)

PIN NO	b	c	e	
Voltage	0	4.7	0	

Q804 (CM5783GR)

PIN NO	b	c	e	
Voltage	0	0.66	0	

Q805 (CM5783GR)

PIN NO	b	c	e	
Voltage	0	0	0.19	

Q806 (CM5783GR)

PIN NO	b	c	e	
Voltage	0.66	0	0.01	

Q808 (DDTC114)

PIN NO	b	c	e	
Voltage	0.02	0	0	

Q1002 (2SC945P)

PIN NO	b	c	e	
Voltage	0	3.33	0	

Q1003 (2SC945P)

PIN NO	b	c	e	
Voltage	0.17	5	0	

Q1004 (2SC945P)

PIN NO	b	c	e	
Voltage	0.17	9.25	0	

Q2011 (2SC945P)

PIN NO	b	c	e	
Voltage	1.68	5.01	1.32	

Q9006 (2SC2001L)

PIN NO	b	c	e	
Voltage	3.35	3.35	2.7	

Q4001 (2SA733Q)

PIN NO	b	c	e	
Voltage	0	-1.6	0.2	

Q4002 (2SC2878-A)

PIN NO	b	c	e	
Voltage	-1.7	0	0	

Q9002 (2SC945P)

PIN NO	b	c	e	
Voltage	0.72	0.15	0	

Q9003 (2SA733Q)

PIN NO	b	c	e	
Voltage	10.55	11.3	11.43	

Q9004 (2SC2001L)

PIN NO	b	c	e	
Voltage	5.6	5	4.96	

Q9005 (TIP41C)

PIN NO	b	c	e	
Voltage	9.6	11.5	8.98	

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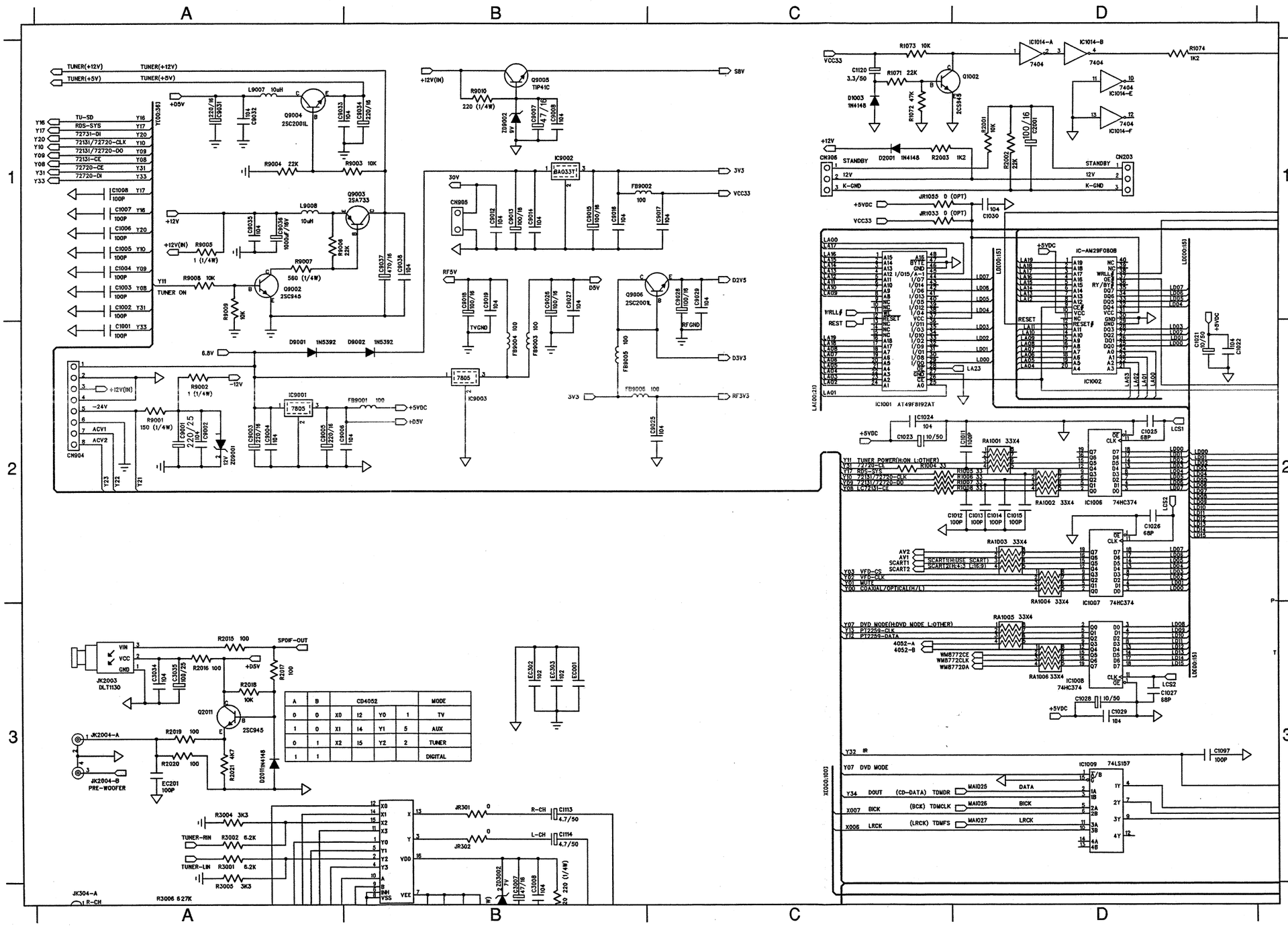
CIRCUIT DIAGRAM (TOP LEFT)



CD4052						MODE
A	B					
0	0	X0	I2	Y0	1	TV
1	0	X1	I4	Y1	5	AUX
0	1	X2	I5	Y2	2	TUNER
1	1					DIGITAL

C1001	A2	FB9005	B2				
C1002	A1	FB9006	B2				
C1003	A1	IC1001	C2				
C1004	A1	IC1006	D2				
C1005	A1	IC1007	D2				
C1006	A1	IC1008	D3				
C1007	A1	IC1009	D3				
C1008	A1	IC1014-A	D1				
C1011	D2	IC1014-B	D1				
C1012	D2	IC1014-E	D1				
C1013	D2	IC1014-F	D1				
C1014	D2	IC9001	A2				
C1015	D2	IC9002	B1				
C1021	D2	IC9003	B2				
C1022	D2	JK2003	A3				
C1023	C2	JK2004-A	A3				
C1024	C2	JK2004-B	A3				
C1025	D2	JR301	B3				
C1026	D2	JR302	B3				
C1027	D3	JR1033	C1				
C1028	D3	JR1055	C1				
C1029	D3	L9007	A1				
C1030	D1	L9008	A1				
C1097	D3	Q1002	D1				
C1113	B3	Q2011	A3				
C1114	B3	Q9002	A1				
C1120	C1	Q9003	B1				
C2001	D1	Q9004	A1				
C3034	A3	Q9005	B1				
C3035	A3	Q9006	B1				
C9001	A2	ZD9001	A2				
C9002	A2	ZD9002	B1				
C9003	A2	R1004	C2				
C9004	A2	R1005	D2				
C9005	A2	R1006	D2				
C9006	A2	R1007	D2				
C9007	B1	R1008	D2				
C9008	B1	R1071	C1				
C9012	B1	R1072	C1				
C9013	B1	R1073	C1				
C9014	B1	R1074	D1				
C9015	B1	R2001	D1				
C9016	B1	R2002	D1				
C9017	C1	R2003	C1				
C9018	B1	R2015	A3				
C9019	B1	R2016	A3				
C9025	C2	R2017	A3				
C9026	B1	R2018	A3				
C9027	B1	R2019	A3				
C9028	C1	R2020	A3				
C9029	C1	R2021	A3				
C9031	A1	R3001	A3				
C9032	A1	R3002	A3				
C9033	A1	R3004	A3				
C9034	B1	R3005	A3				
C9035	A1	R9001	A2				
C9036	A1	R9002	A2				
C9037	B1	R9003	B1				
C9038	B1	R9004	A1				
CN203	D1	R9005	A1				
CN904	A2	R9006	A1				
CN905	B1	R9007	A1				
CN906	C1	R9008	A1				
D1003	C1	R9009	A1				
D2001	C1	R9010	B1				
D2011	A3	RA1001	D2				
D9001	A2	RA1002	D2				
EC001	B3	RA1003	D2				
EC201	A3	RA1004	D2				
EC302	B3	RA1005	D3				
EC303	B3	RA1006	D3				
FB9001	B2						
FB9002	B1						
FB9003	B2						
FB9004	B2						

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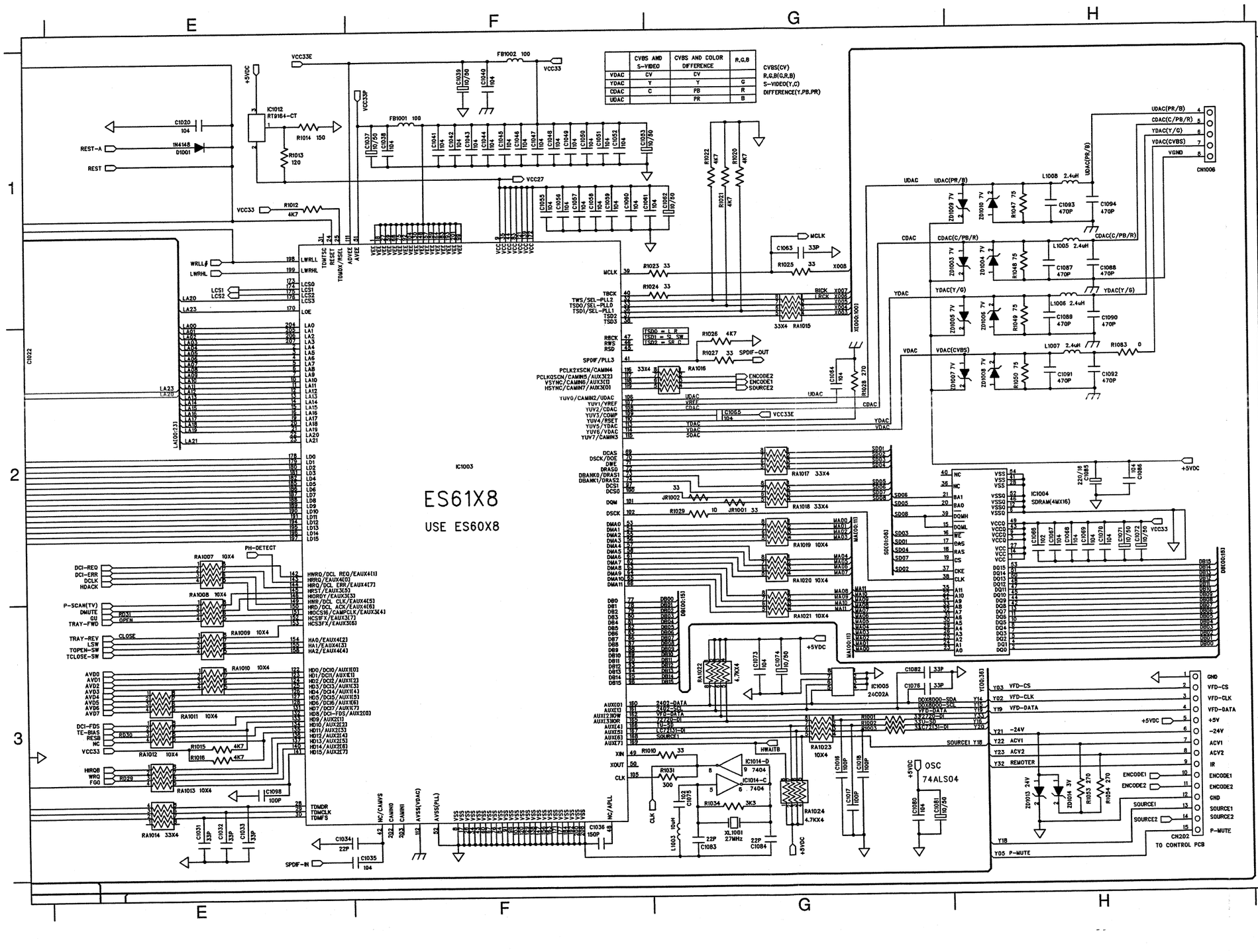
CIRCUIT DIAGRAM (TOP RIGHT)



C1016	G3	IC1014-D	G3		
C1017	G3	L1003	G3		
C1018	G3	L1005	H1		
C1020	E1	L1006	H1		
C1031	E3	L1007	H2		
C1032	E3	L1008	H1		
C1033	E3	ZD1003	H1		
C1034	E3	ZD1004	H1		
C1035	F3	ZD1005	H2		
C1036	F3	ZD1006	H2		
C1037	F1	ZD1007	H2		
C1038	F1	ZD1008	H2		
C1039	F1	ZD1009	H1		
C1040	F1	ZD1010	H1		
C1041	F1	ZD1013	H3		
C1042	F1	ZD1014	H3		
1 C1043	F1	R1001	G3		
C1044	F1	R1002	G3		
C1045	F1	R1003	G3		
C1046	F1	R1010	G3		
C1047	F1	R1012	E1		
C1048	F1	R1013	E1		
C1049	F1	R1014	E1		
C1050	F1	R1015	E3		
C1051	F1	R1016	E3		
C1052	F1	R1020	G1		
C1053	F1	R1021	G1		
C1055	F1	R1022	G1		
C1056	F1	R1023	G1		
C1057	F1	R1024	G1		
C1058	F1	R1025	G1		
C1059	F1	R1026	G2		
C1060	F1	R1027	G2		
C1061	G1	R1028	G2		
C1062	G1	R1029	G2		
C1063	G1	R1031	G3		
C1064	G1	R1034	G3		
2 C1065	G2	R1047	H1		
C1066	H2	R1048	H1		
C1067	H2	R1049	H2		
C1068	H2	R1050	H2		
C1069	H2	R1053	H2		
C1070	H2	R1054	H2		
C1071	H2	R1083	H2		
C1072	H2	JR1001	G2		
C1073	G3	JR1002	G2		
C1074	G3	RA1007	E2		
C1075	G3	RA1008	E2		
C1076	G3	RA1009	E3		
C1080	G3	RA1010	E3		
C1081	G3	RA1011	E3		
C1082	G3	RA1012	E3		
C1083	G3	RA1013	E3		
C1084	G3	RA1014	E3		
C1085	H2	RA1015	G2		
C1086	H2	RA1016	G2		
C1087	H1	RA1017	G2		
3 C1088	H1	RA1018	G2		
C1089	H2	XL1001	G3		
C1090	H2	RA1019	G2		
C1091	H2	RA1020	G2		
C1092	H2	RA1021	G3		
C1093	H1	RA1022	G3		
C1094	H1	RA1023	G3		
C1098	E3	RA1024	G3		
CN202	H3				
CN1006	H1				
D1001	E1				
FB1001	F1				
FB1002	F1				
IC1003	F2				
IC1004	H2				
IC1005	G3				
IC1012	E1				
IC1014-C	G3				

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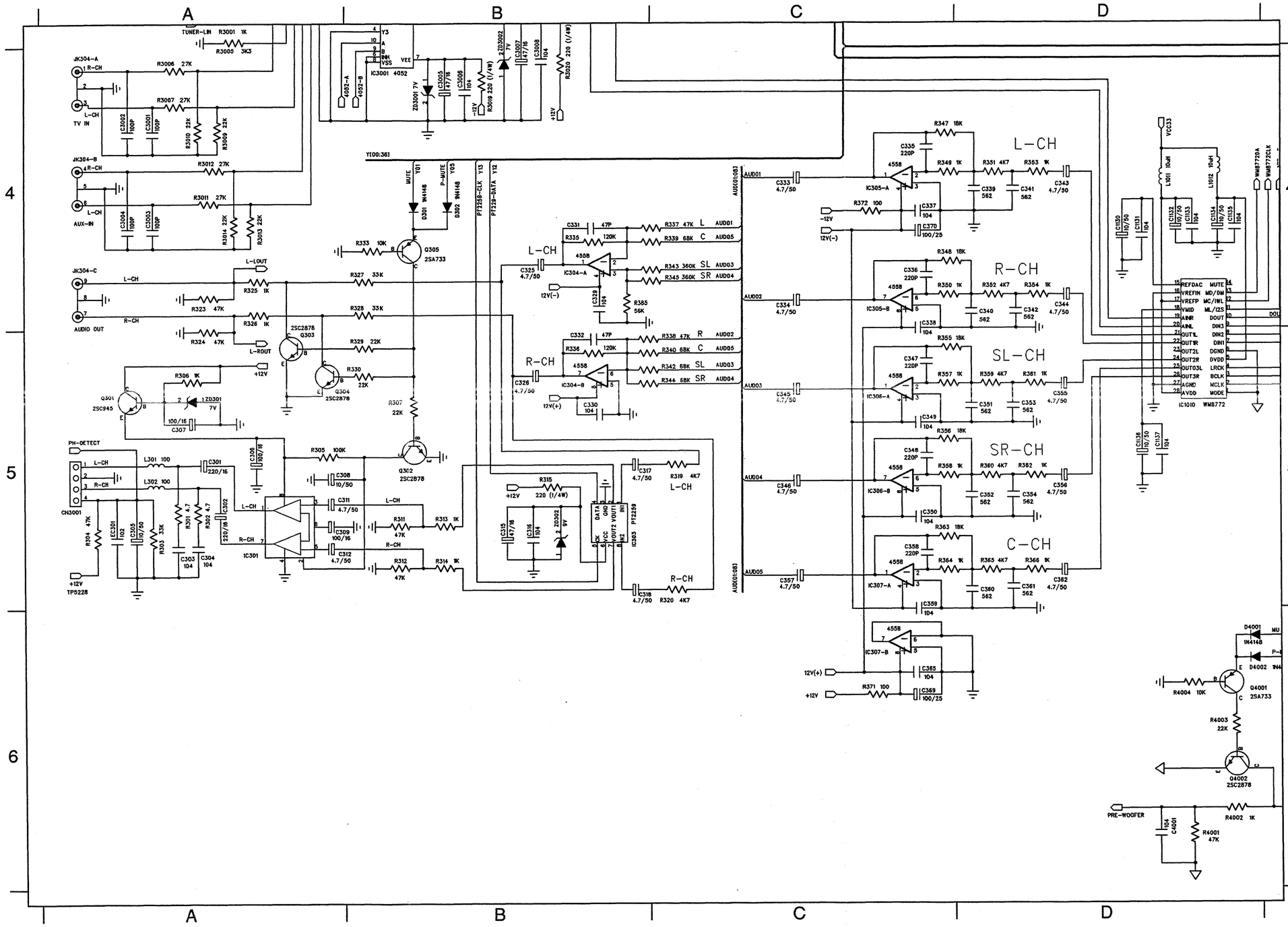
CIRCUIT DIAGRAM (BOTTOM LEFT)



C301	A5	D302	B4	R355	C5
C302	A5	D4001	D6	R356	C5
C303	A5	D4002	D6	R357	C5
C304	A5	EC301	A5	R358	C5
C305	A5	IC301	A5	R359	D5
C306	A5	IC303	B5	R360	D5
C307	A5	IC304-A	B4	R361	D5
C308	A5	IC304-B	B5	R362	D5
C309	A5	IC305-A	C4	R363	C5
C311	A5	IC305-B	C4	R364	C5
C312	A5	IC306-A	C5	R365	D5
C315	B5	IC306-B	C5	R366	D5
C316	B5	IC307-A	C5	R371	C6
C317	B5	IC307-B	C6	R372	C4
C318	B5	IC1010	D5	R385	B4
C323	A4	IC3001	B4	R3006	A4
C324	A5	JK304-A	A4	R3007	A4
C325	B4	JK304-B	A4	R3009	A4
C326	B5	JK304-C	A4	R3010	A4
C329	B4	L301	A5	R3011	A4
C330	B5	L302	A5	R3012	A4
C331	B4	L1011	D4	R3013	A4
C332	B5	L1012	D4	R3014	A4
C333	C4	Q301	A5	R3019	B4
C334	C4	Q302	B5	R3020	B4
C335	C4	Q303	A5	R4001	D6
C336	C4	Q304	A5	R4002	D6
C337	C4	Q305	B4	R4003	D6
C338	C4	Q4001	D6	R4004	D6
C339	D4	Q4002	D6		
C340	D4	ZD301	A5		
C341	D4	ZD302	B5		
C342	D4	ZD3001	B4		
C343	D4	ZD3002	B4		
C344	D4	R301	A5		
C345	C5	R302	A5		
C346	C5	R303	A5		
C347	C5	R304	A5		
C348	C5	R305	A5		
C349	C5	R306	A5		
C350	C5	R307	B5		
C351	D5	R311	B5		
C352	D5	R312	B5		
C353	D5	R313	B5		
C354	D5	R314	B5		
C355	D6	R315	B5		
C356	D5	R319	C5		
C357	C5	R320	C5		
C358	C5	R323	A4		
C359	C5	R324	A5		
C360	D5	R325	A4		
C361	D5	R326	A4		
C362	D5	R327	B4		
C365	C6	R328	B4		
C369	C6	R329	B5		
C370	C4	R330	B5		
C1130	D4	R333	B4		
C1131	D4	R335	B4		
C1132	D4	R336	B5		
C1133	D4	R337	C4		
C1134	D4	R338	C5		
C1135	D4	R339	C4		
C1136	D5	R340	C5		
C1137	D5	R342	C5		
C3001	A4	R343	C4		
C3002	A4	R344	C5		
C3003	A4	R345	C4		
C3004	A4	R347	C4		
C3005	B4	R348	C4		
C3006	B4	R349	C4		
C3007	B4	R350	C4		
C3008	B4	R351	D4		
C4001	D6	R352	D4		
CN3001	A5	R353	D4		
D301	B4	R354	D4		

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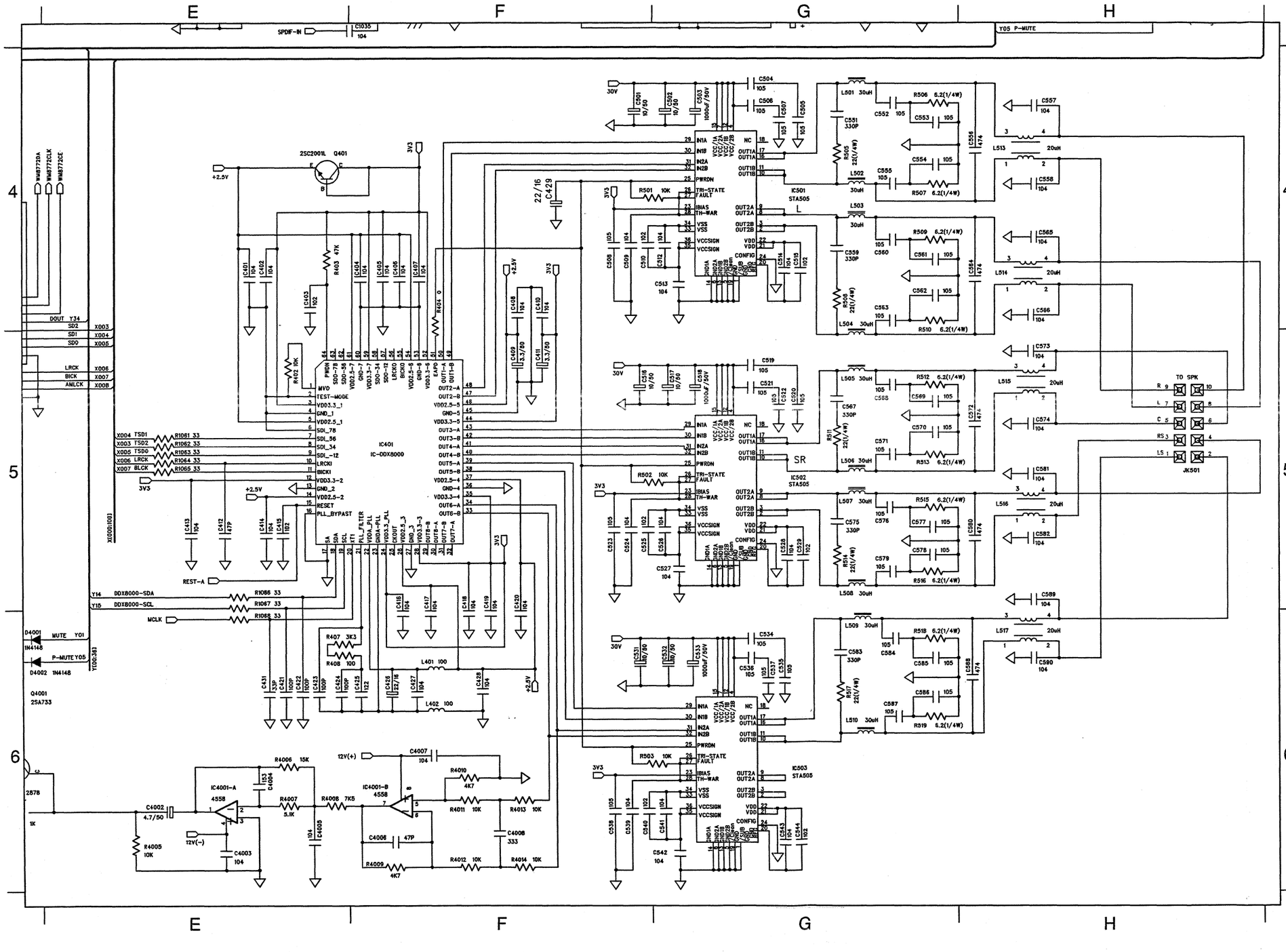
CIRCUIT DIAGRAM (BOTTOM RIGHT)



C401	E4	C554	G4	R502	F5
C402	E4	C555	G4	R503	F6
C403	E4	C556	H4	R505	G4
C404	F4	C557	H4	R506	G4
C405	F4	C558	H4	R507	G4
C406	F4	C559	G4	R508	G4
C407	F4	C560	G4	R509	G4
C408	F4	C561	G4	R510	G4
C409	F5	C562	G4	R511	G5
C410	F4	C563	G4	R512	G5
C411	F5	C564	H4	R513	G5
C412	E5	C565	H4	R514	G5
C413	E5	C566	H4	R515	G5
C414	E5	C567	G5	R516	G5
C415	E5	C568	G5	R517	G6
C416	F5	C569	G5	R518	G6
C417	F5	C570	G5	R519	G6
C418	F5	C571	G5	R1061	E5
C419	F5	C572	H5	R1062	E5
C420	F5	C573	H5	R1063	E5
C421	E6	C574	H5	R1064	E5
C422	E6	C575	G5	R1065	E5
C423	E6	C576	G5	R1066	E5
C424	E6	C577	G5	R1067	E5
C425	F6	C578	G5	R1068	E6
C426	F6	C579	G5	R4005	E6
C427	F6	C580	H5	R4006	E6
C428	F6	C581	H5	R4007	E6
C429	F4	C582	H5	R4008	E6
C431	E6	C583	G6	R4009	F6
C501	F4	C584	G6	R4010	F6
C502	G4	C585	G6	R4011	F6
C503	G4	C586	G6	R4012	F6
C504	G4	C587	G6	R4013	F6
C505	G4	C588	H6	R4014	F6
C506	G4	C589	H5		
C507	G4	C590	H6		
C508	F4	C4002	E6		
C509	F4	C4003	E6		
C510	F4	C4004	E6		
C512	G4	C4005	E6		
C513	G4	C4006	F6		
C514	G4	C4007	F6		
C515	G4	C4008	F6		
C516	F5	IC401	F5		
C517	G5	IC501	G4		
C518	G5	IC502	G5		
C519	G5	IC503	G6		
C520	G5	IC4001-A	E6		
C521	G5	IC4001-B	F6		
C522	G5	JK501	H5		
C523	F5	L401	F6		
C524	F5	L402	F6		
C525	F5	L501	G4		
C526	G5	L502	G4		
C527	G5	L503	G4		
C528	G5	L504	G4		
C529	G5	L505	G5		
C531	F6	L506	G5		
C532	G6	L507	G5		
C533	G6	L508	G5		
C534	G6	L509	G6		
C535	G6	L510	G6		
C536	G6	L513	H4		
C537	G6	L514	H4		
C538	F6	L515	H5		
C539	F6	L516	H5		
C540	F6	L517	H6		
C541	G6	Q401	E4		
C542	G6	R402	E5		
C543	G6	R403	E4		
C544	G6	R404	F4		
C551	G4	R407	E6		
C552	G4	R408	E6		
C553	G4	R501	F4		

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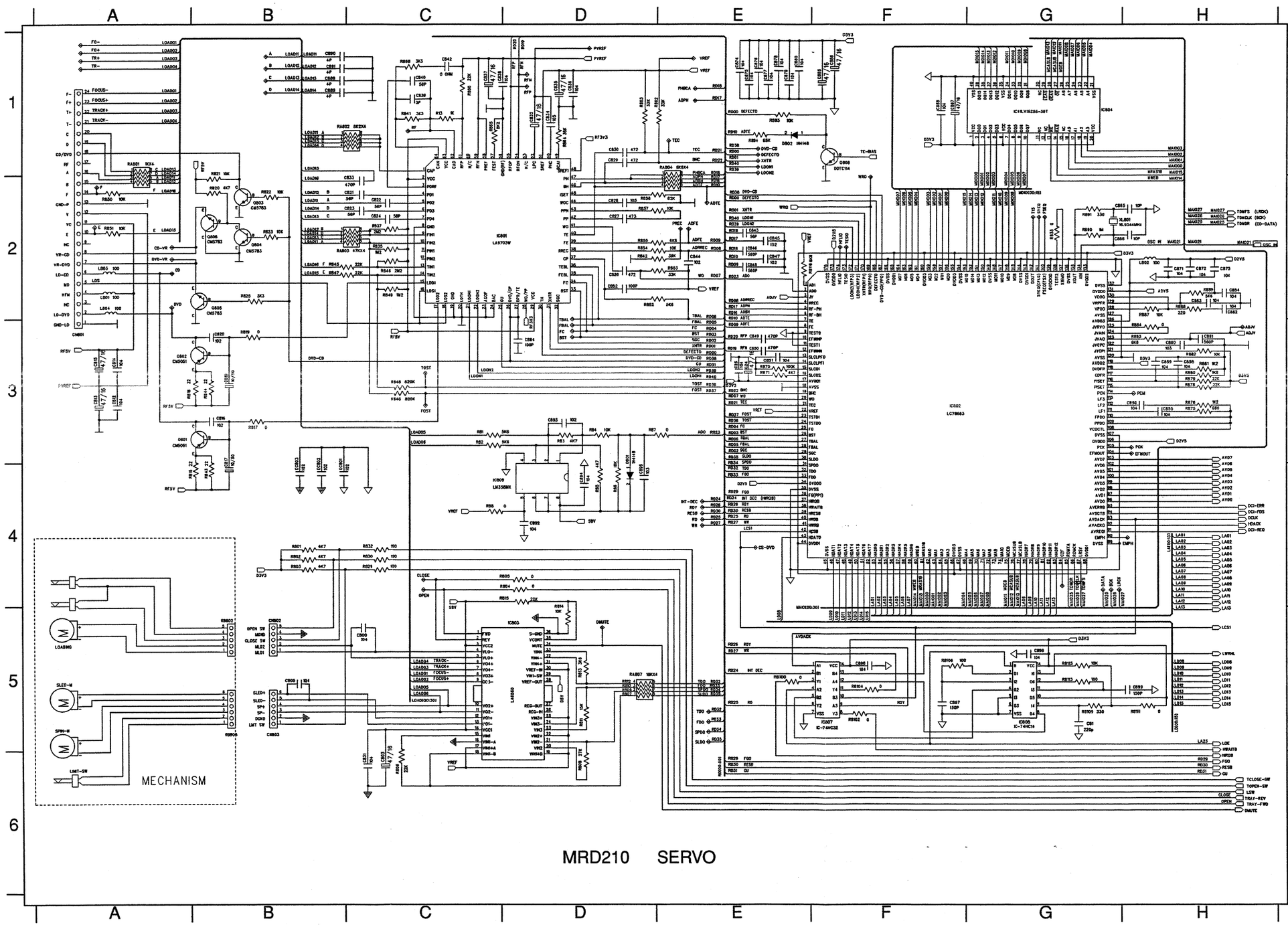
CIRCUIT DIAGRAM (SERVICE)



C24	E3	C892	D4	R845	B2
C25	E3	C893	D3	R846	C2
C81	G5	C894	D4	R847	B2
C800	C5	C895	D4	R848	C3
C803	C6	C896	F5	R849	C2
C805	B5	C897	F5	R850	A2
C812	A3	C898	G5	R851	A2
C813	A3	C899	H5	R852	D2
C814	A3	CN801	A3	R853	E2
C815	A3	CN802	B5	R854	D2
C816	B3	CN803	B5	R855	D2
C817	B3	D801	D3	R857	D2
C819	B3	D802	E1	R858	D2
C820	B3	EC801	B4	R862	D1
C821	C2	EC802	B4	R863	D1
C822	C2	EC803	B4	R864	D1
C823	C2	IC801	C2	R865	C1
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C826	D2	IC803	D5	R868	C1
C827	D2	IC804	G1	R870	E3
C828	D2	IC807	F5	R871	E3
C829	D1	IC808	G5	R875	H3
C830	D1	IC809	C4	R876	H3
C831	C6	L801	A2	R878	H3
C832	D1	L802	H2	R879	H3
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C834	D1	L804	A2	R881	H3
C835	D1	Q801	A3	R882	H3
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C837	C1	Q803	B2	R884	H3
C838	C1	Q804	B2	R887	H2
C839	C1	Q805	B2	R888	H2
C840	C1	Q806	B2	R889	H2
C842	C1	Q808	F1	R890	G2
C843	E2	R13	C1	R891	G2
C844	E2	R81	C3	R893	E1
C845	E2	R82	C3	R894	E1
C846	E2	R83	D3	R8100	E5
C847	E2	R84	D3	R8102	F5
C848	E2	R85	D4	R8104	F5
C849	E3	R86	D4	R8106	F5
C850	E3	R87	D3	R8109	G5
C851	E3	R88	C4	R8111	H5
C852	D2	R801	B4	R8113	G5
C854	H2	R802	B4	R8115	G5
C855	H3	R803	B4	R8116	E2
C856	H3	R804	D4	RA801	A1
C858	H3	R805	D4	RA802	C1
C859	H3	R806	C6	RA803	C2
C860	H3	R808	D6	RA804	E1
C861	H3	R811	D5	RA807	D5
C862	H2	R813	D5	XL801	G2
C863	H2	R814	D5		
C864	D3	R815	D4		
C865	G2	R816	B4		
C866	G2	R817	B3		
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C868	F1	R819	B3		
C871	H2	R820	B2		
C872	H2	R821	B2		
C873	H2	R822	B2		
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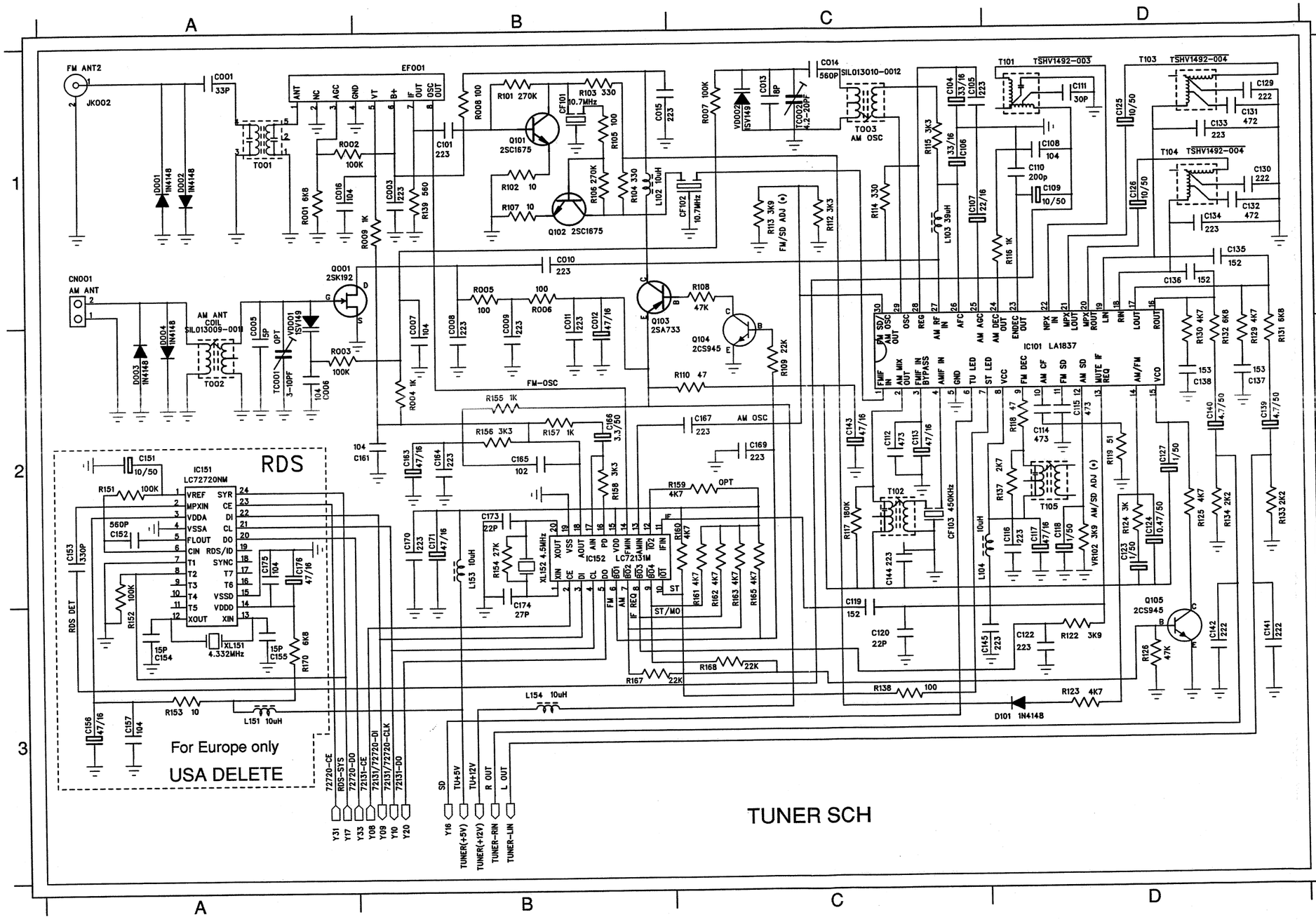
C875	E1	R825	B2		
C876	E1	R829	C4		
C877	E1	R830	C4		
C878	E1	R832	C4		
C879	E1	R833	G2		
C880	E1	R835	C2		
C885	F1	R837	C2		
C886	F1	R840	C3		
C888	B1	R841	C1		
C889	B1	R842	D2		
C890	B1	R843	B4		
		R844	B3		

8-9

CIRCUIT DIAGRAM (TUNER)



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C003	B1	D002	A1	R134	D2
C005	A2	D003	A2	R137	D2
C006	A2	D004	A2	R138	C3
C007	B2	D101	D3	R139	B1
C008	B2	EF001	B1	R154	B2
C009	B2	IC101	D2	R155	B2
C010	B1	IC152	B2	R156	B2
C011	B2	JK002	A1	R157	B2
C012	B2	L102	B1	R158	B2
C013	C1	L103	C1	R159	C2
C014	C1	L104	C2	R160	C2
C015	B1	L153	B2	R161	C2
C016	A1	L154	B3	R162	C2
C101	B1	Q001	A1	R163	C2
C104	C1	Q101	B1	R165	C2
C105	C1	Q102	B1	R167	B3
C106	C1	Q103	B1	R168	C3
C107	C1	Q104	C2		
C108	D1	Q105	D3		
C109	D1	T001	A1		
C110	D1	T002	A2		
C111	D1	T003	C1		
C112	C2	T101	D1		
C113	C2	T102	C2		
C114	D2	T103	D1		
C115	D2	T104	D1		
C116	D2	T105	D2		
C117	D2	TC001	A2		
C118	D2	TC002	C1		
C119	C3	VD001	A2		
C120	C3	VD002	C1		
C122	D3	VR102	D2		
C123	D2	XL152	B2		
C124	D2	R001	A1		
C125	D1	R002	A1		
C126	D1	R003	A2		
C127	D2	R004	B2		
C129	D1	R005	B1		
C130	D1	R006	B1		
C131	D1	R007	C1		
C132	D1	R008	B1		
C133	D1	R009	B1		
C134	D1	R101	B1		
C135	D1	R102	B1		
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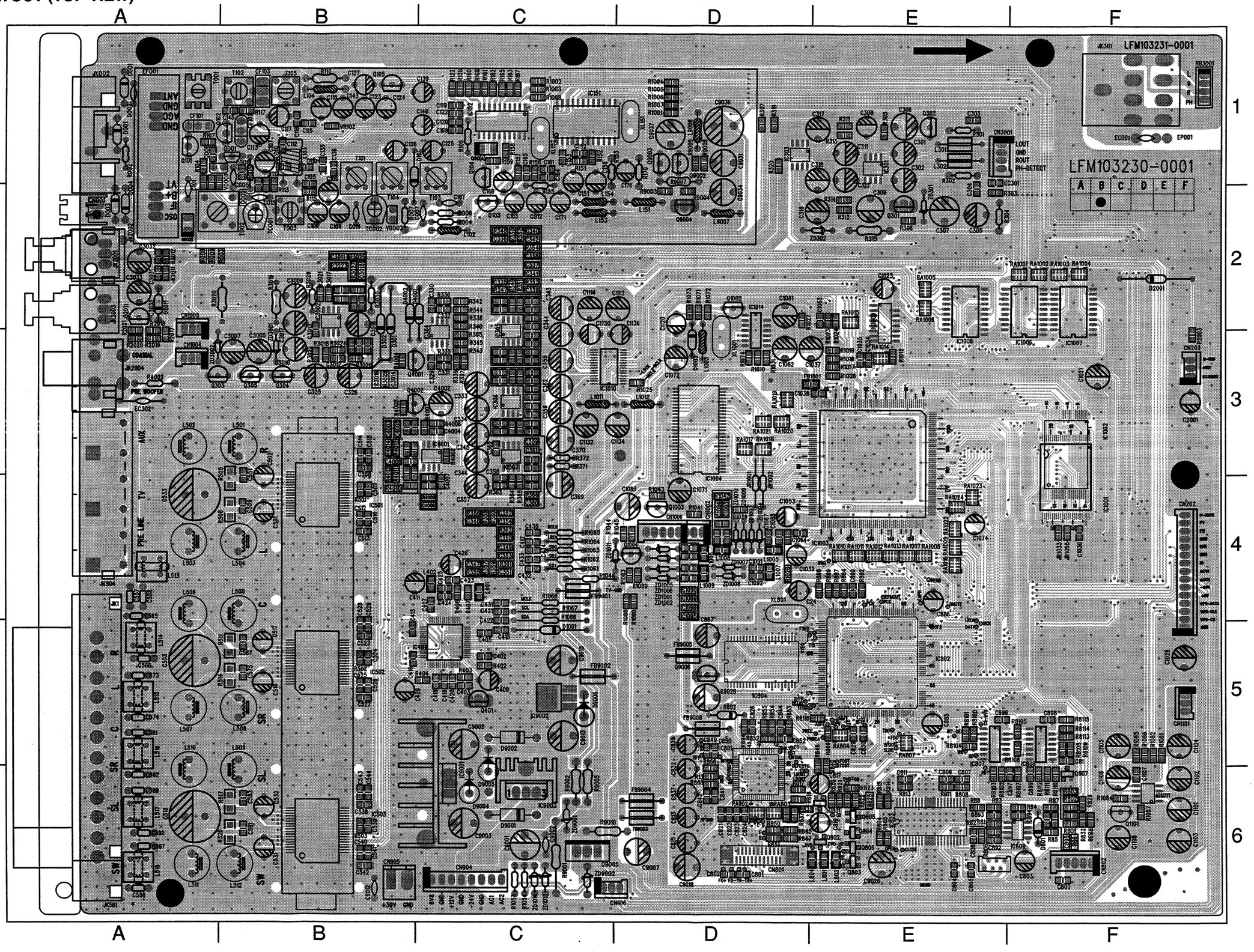
C140	D2	R107	B1		
C141	D3	R108	C1		
C142	D3	R109	C2		
C143	C2	R110	C2		
C144	C2	R112	C1		
C145	C3	R113	C1		
C161	B2	R114	C1		
C163	B2	R115	C1		
C164	B2	R116	D1		
C165	B2	R117	C2		
C166	B2	R118	D2		
C167	C2	R119	D2		
C169	C2	R122	D3		
C170	B2	R123	D3		
C171	B2	R124	D2		
C173	B2	R125	D2		
C174	B3	R126	D3		
CF101	B1	R129	D2		
CF102	C1	R130	D2		
CF103	C2	R131	D2		
CN001	A1	R132	D2		

8-10

PCB LAYOUT (TOP VIEW)



8-10A

PCB LAYOUT (TOP VIEW) - MAPPING

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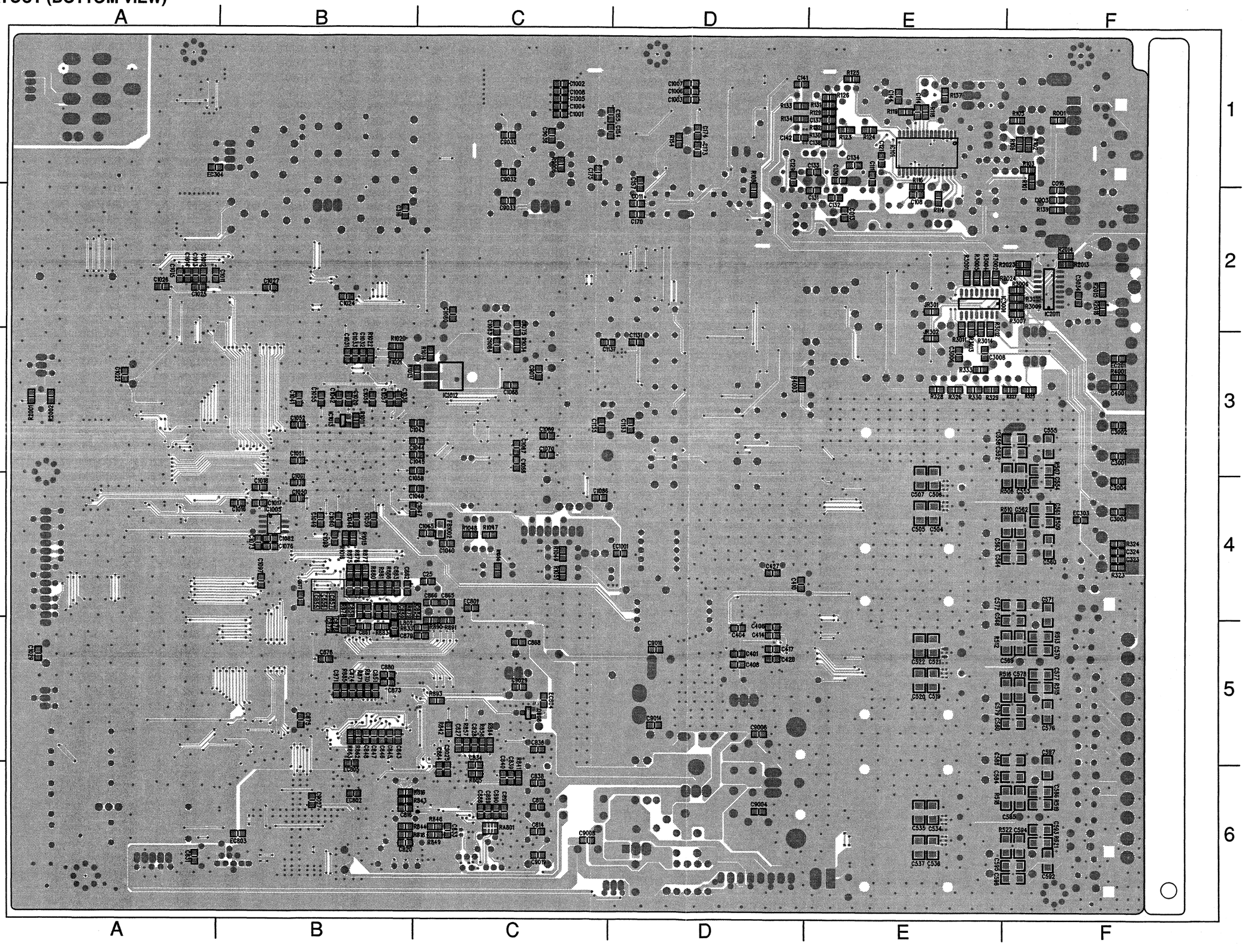
ZD9002 C6

8-11

PCB LAYOUT (BOTTOM VIEW)



8-11A

PCB LAYOUT (BOTTOM VIEW) - MAPPING

C25	C4	C535	E6	C846	B5	C1016	B4	C1080	C2	JR301	E2	R515	F5	R2001	A3
C003	F2	C536	E6	C847	B5	C1017	B4	C1082	B4	JR302	E3	R516	F5	R2002	A3
C011	D2	C537	E6	C848	B5	C1018	B4	C1083	C2	L802	B5	R518	E6	R2015	F2
C013	E2	C552	E3	C851	B5	C1020	B3	C1084	C3	Q808	C5	R519	F6	R2016	F2
C016	F1	C553	F4	C854	C4	C1022	A3	C1086	C4	R001	F1	R816	C6	R3001	E2
C108	E2	C554	F4	C855	B4	C1024	B2	C1097	B4	R101	F1	R818	C6	R3002	E2
C111	E1	C555	F3	C856	B4	C1025	A2	C1098	B4	R102	F1	R833	B5	R3004	E2
C114	E1	C556	E3	C858	B4	C1026	A2	C1131	D3	R103	F1	R841	C6	R3005	E2
C129	D1	C560	F4	C859	B4	C1027	B2	C1133	D3	R105	F1	R842	C5	R3006	F2
C130	E1	C561	F4	C861	B4	C1029	A5	C1135	C3	R106	F1	R843	C6	R3007	F2
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C134	E1	C564	E4	C864	C5	C1033	B3	C3002	F3	R116	E1	R849	C6	R3011	E3
C133	E1	C568	E4	C865	C4	C1036	B3	C3003	F4	R118	E1	R857	C5	R3012	E2
C137	E1	C569	F5	C866	C4	C1040	C4	C3004	F4	R119	E1	R858	C5	R3013	E3
C138	E1	C570	F5	C868	C5	C1041	B3	C3006	E3	R123	E1	R862	B5	R3014	E3
C141	D1	C571	F4	C871	B5	C1042	B3	C3008	E3	R124	E1	R863	B5	R4001	F3
C142	D1	C572	E4	C872	B5	C1043	C3	C3034	F2	R125	E1	R864	C5	R4003	D3
C144	E1	C576	F5	C873	B5	C1044	C3	C4001	F3	R126	E1	R865	C6	R9006	C1
C170	D2	C577	F5	C874	B5	C1045	C3	C9004	D6	R129	E1	R870	B5	RA801	C6
C173	D1	C578	F5	C875	B5	C1046	C4	C9006	D5	R130	E1	R871	B5		
C174	D1	C579	E5	C876	B5	C1047	C4	C9008	C6	R131	E1	R875	B4		
C316	B2	C580	E5	C877	B4	C1048	B4	C9014	D5	R132	E1	R876	B4		
C323	F4	C584	E6	C878	B5	C1049	B4	C9016	D5	R133	D1	R878	B4		
C324	F4	C585	F6	C879	B5	C1050	B4	C9017	C3	R134	D1	R879	B4		
C401	D5	C586	F6	C880	B5	C1051	B3	C9019	C6	R137	E1	R880	B4		
C404	D5	C587	F5	C888	C6	C1052	B3	C9025	C5	R139	F2	R881	B4		
C406	D5	C588	E5	C889	C6	C1055	B3	C9027	B6	R154	D1	R883	B5		
C408	D5	C812	C6	C890	C6	C1056	B3	C9029	C5	R323	F4	R890	C5		
C410	D4	C814	C6	C891	C6	C1057	B3	C9032	C1	R324	F4	R891	C5		
C414	D5	C816	B6	C1001	C1	C1058	C4	C9033	C2	R325	F3	R893	C5		
C417	D5	C820	B6	C1002	C1	C1059	B4	C9035	C1	R326	E3	R1013	C3		
C427	D4	C827	C5	C1003	D1	C1060	B4	C9038	C1	R327	F3	R1014	C3		
C428	D5	C828	C5	C1004	C1	C1061	B4	EC201	F3	R328	E3	R1015	B4		
C504	E4	C831	A6	C1005	C1	C1065	C4	EC303	F4	R329	E3	R1016	B4		
C505	E4	C833	C6	C1006	D1	C1066	C3	EC802	B6	R330	E3	R1020	B3		
C506	E4	C834	C5	C1007	D1	C1067	C3	EC803	B6	R333	E3	R1021	B3		
C507	E4	C836	C5	C1008	C1	C1068	C3	EC801	E4	R506	F4	R1022	B3		
C519	E5	C838	C4	C1011	A2	C1069	C3	FB1002	C4	R507	F3	R1034	C3		
C520	E5	C839	C6	C1012	A2	C1070	C3	IC101	E1	R509	F4	R1047	C4		
C521	E5	C840	C6	C1013	A2	C1073	B4	IC1005	B4	R510	F4	R1048	C4		
C522	E5	C843	B5	C1014	A2	C1075	C2	IC1012	C3	R512	E5	R1049	C4		
C534	E6	C845	B5	C1015	A2	C1076	B4	IC3001	E2	R513	F5	R1050	C4		

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ELECTRICAL PARTS LIST - MAIN BOARD

ELECTRICAL PARTS LIST - MAIN BOARD

MISCELLANEOUS

CF101	9965 000 17368	CER FILTER 10.7 MHZ
CF102	9965 000 15868	CER FILTER 10.7 MHZ
CF103	9965 000 15869	CER FILTER 450 KHZ
CN001	9965 000 15855	CONNECTOR S2B-XH-A 2 PIN
CN801	9965 000 20271	CHIP CONNECTOR 24P P=0.5MM
CN803	9965 000 20272	CONNECTOR 6P P=1.0MMX2
CN905	9965 000 16341	CONNECTOR 2 PIN
EF001	9965 000 14228	KST-F404VA2FM
FB1001	9965 000 17369	CHIP BEAD 100 OHM AT 100MHZ
FB1002	9965 000 17369	CHIP BEAD 100 OHM AT 100MHZ
FB9001	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHZ
FB9002	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHZ
FB9003	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHZ
FB9004	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHZ
FB9005	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHZ
FB9006	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHZ
JK002	9965 000 17361	RF JACK FEMALE TYPE ID1.44MM
JK301	9965 000 19621	HEADPHONE JACK
JK304	9965 000 17364	RCA JACK 6P
JK501	9965 000 12502	SPEAKER JACK 10P
JK2003	9965 000 20273	TDSK JACK DLT1111 (OPTICAL)
JK2004	9965 000 17365	RCA JACK 2P
L102	9965 000 15871	INDUCTOR 10 UH 10%
L103	9965 000 15872	COIL 39 MH 10%
L104	9965 000 15871	INDUCTOR 10 UH 10%
L153	9965 000 15871	INDUCTOR 10 UH 10%
L154	9965 000 15871	INDUCTOR 10 UH 10%
L301	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHZ
L302	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHZ
L401	9965 000 17369	CHIP BEAD 100 OHM AT 100MHZ
L402	9965 000 17369	CHIP BEAD 100 OHM AT 100MHZ
L501	9965 000 16695	IND 30UH 15% 1KHZ 0.25V 2A
L502	9965 000 16695	IND 30UH 15% 1KHZ 0.25V 2A
L503	9965 000 16695	IND 30UH 15% 1KHZ 0.25V 2A
L504	9965 000 16695	IND 30UH 15% 1KHZ 0.25V 2A
L505	9965 000 16695	IND 30UH 15% 1KHZ 0.25V 2A
L506	9965 000 16695	IND 30UH 15% 1KHZ 0.25V 2A
L507	9965 000 16695	IND 30UH 15% 1KHZ 0.25V 2A
L508	9965 000 16695	IND 30UH 15% 1KHZ 0.25V 2A
L509	9965 000 16695	IND 30UH 15% 1KHZ 0.25V 2A
L510	9965 000 16695	IND 30UH 15% 1KHZ 0.25V 2A
L513	9965 000 16692	20UH D0.5MM 4PIN
L514	9965 000 16692	20UH D0.5MM 4PIN
L515	9965 000 16692	20UH D0.5MM 4PIN
L516	9965 000 16692	20UH D0.5MM 4PIN
L517	9965 000 16692	20UH D0.5MM 4PIN
L801	9965 000 17369	CHIP BEAD 100 OHM AT 100MHZ
L802	9965 000 17369	CHIP BEAD 100 OHM AT 100MHZ
L803	9965 000 17369	CHIP BEAD 100 OHM AT 100MHZ
L804	9965 000 17369	CHIP BEAD 100 OHM AT 100MHZ
L1003	9965 000 15871	INDUCTOR 10 UH 10%
L1005	9965 000 18025	CHIP INDUCTOR 2.4 UH 5%
L1006	9965 000 18025	CHIP INDUCTOR 2.4 UH 5%
L1007	9965 000 18025	CHIP INDUCTOR 2.4 UH 5%
L1008	9965 000 18025	CHIP INDUCTOR 2.4 UH 5%
L1011	9965 000 15871	INDUCTOR 10 UH 10%
L1012	9965 000 15871	INDUCTOR 10 UH 10%
L9007	9965 000 15871	INDUCTOR 10 UH 10%
L9008	9965 000 15871	INDUCTOR 10 UH 10%
T001	9965 000 15880	OSC FM SUMIDA S-8N
T002	9965 000 15874	ANT OSC AM 4-6:10T 1-3:86T
T003	9965 000 17370	OSC COIL 108UH (796 KHZ) COIL
T101	9965 000 15877	BIAS COIL 78 KHZ
T102	9965 000 15875	AM IFT 455KHZ Q=130
T103	9965 000 15878	BIAS COIL 16 KHZ
T104	9965 000 15878	BIAS COIL 16 KHZ
T105	9965 000 15879	FM IFT 10.7MHZ Q=60 MIN
TC001	9965 000 15865	COND TRIM 3 - 10 PF NP0
TC002	9965 000 15866	COND TRIM 4.2 - 20 PF N450
VD001	4822 130 81673	1SV149
VD002	4822 130 81673	1SV149
VR102	4822 051 20392	3K9 5% 0,1W
XL152	9965 000 19415	CRYSTAL 4.5000MHZ
XL801	9965 000 19396	CRYSTAL 16.9344MHZ
XL1001	9965 000 17371	CRYSTAL 27.0000MHZ

CAPACITORS

C503	9965 000 20274	COND ELECT 1000UF 50V 20% 85'C
C518	9965 000 20274	COND ELECT 1000UF 50V 20% 85'C
C533	9965 000 20274	COND ELECT 1000UF 50V 20% 85'C
C9012	9965 000 20275	COND DISC 0.1UF 100V
C9036	9965 000 20276	COND ELECT 1000UF 10V 20%

RESISTORS

RA801	9965 000 20277	CHIP ARRAY 1K OHMX4 1/10W 5%
RA802	9965 000 20278	CHIP ARRAY 8.2K OHMX4 1/10W 5%
RA803	9965 000 20279	CHIP ARRAY 47K OHM 1/16W 5%
RA804	9965 000 20280	CHIP ARRAY 6.8K OHMX4 1/10W 5%
RA807	9965 000 20281	CHIP ARRAY 10K OHM 1/16W 5%
RA1001	9965 000 12486	RES ARRAY 4*33 OHM 1/10W 5%
RA1002	9965 000 12486	RES ARRAY 4*33 OHM 1/10W 5%
RA1003	9965 000 12486	RES ARRAY 4*33 OHM 1/10W 5%
RA1004	9965 000 12486	RES ARRAY 4*33 OHM 1/10W 5%
RA1005	9965 000 12486	RES ARRAY 4*33 OHM 1/10W 5%
RA1006	9965 000 12486	RES ARRAY 4*33 OHM 1/10W 5%
RA1007	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA1008	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA1009	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA1010	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA1011	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA1012	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA1013	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA1014	9965 000 12486	RES ARRAY 4*33 OHM 1/10W 5%
RA1015	9965 000 12486	RES ARRAY 4*33 OHM 1/10W 5%
RA1016	9965 000 12486	RES ARRAY 4*33 OHM 1/10W 5%
RA1017	9965 000 12486	RES ARRAY 4*33 OHM 1/10W 5%
RA1018	9965 000 12486	RES ARRAY 4*33 OHM 1/10W 5%
RA1019	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA1020	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA1021	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA1022	9965 000 20282	CHIP ARRAY 4.7K OHM 1/16W 5%
RA1023	9965 000 12487	RES ARRAY 4*10 OHM 1/10W 5%
RA1024	9965 000 20282	CHIP ARRAY 4.7K OHM 1/16W 5%

DIODES

D001	4822 130 30621	1N4148
D002	4822 130 30621	1N4148
D003	4822 130 30621	1N4148
D004	4822 130 30621	1N4148
D101	4822 130 30621	1N4148
D301	4822 130 30621	1N4148
D302	4822 130 30621	1N4148
D801	4822 130 30621	1N4148
D802	4822 130 30621	1N4148
D1001	4822 130 30621	1N4148
D1003	4822 130 30621	1N4148
D2001	4822 130 30621	1N4148
D2011	4822 130 30621	1N4148
D4001	4822 130 30621	1N4148
D4002	4822 130 30621	1N4148
D4003	4822 130 30621	1N4148
D9001	9965 000 19970	DIODE 1N5392 1.5A 100V
D9002	9965 000 19970	DIODE 1N5392 1.5A 100V
ZD301	9965 000 20283	DIODE ZENR 6.4-6.7V 0.5W
ZD302	9965 000 14658	ZENER 8.5-8.9V 0.5W
ZD1003	4822 130 80272	MTZJ7.5C
ZD1004	4822 130 80272	MTZJ7.5C
ZD1005	4822 130 80272	MTZJ7.5C
ZD1006	4822 130 80272	MTZJ7.5C
ZD1007	4822 130 80272	MTZJ7.5C
ZD1008	4822 130 80272	MTZJ7.5C
ZD1009	4822 130 80272	MTZJ7.5C
ZD1010	4822 130 80272	MTZJ7.5C
ZD1013	9965 000 17373	DIODE ZENR 23.6-24.7V 0.5W
ZD1014	9965 000 17374	DIODE ZENR 2.9-3.1V 0.5W
ZD3001	4822 130 80272	MTZJ7.5C
ZD3002	4822 130 80272	MTZJ7.5C
ZD9001	9965 000 20284	DIODE ZENR 10.4-10.8V 0.5W
ZD9002	9965 000 12635	DIODE ZENER 9.1-9.5V 0.5W

TRANSISTORS & INTEGRATED CIRCUITS

Q001	4822 130 63173	2SK192AY
Q101	4822 130 41595	2SC1675L
Q102	4822 130 41595	2SC1675L
Q103	4822 130 63876	2SA733R
Q104	4822 130 41198	2SC945P
Q105	4822 130 41198	2SC945P
Q301	4822 130 41198	2SC945P
Q302	4822 130 43818	2SC2878-A
Q303	4822 130 43818	2SC2878-A
Q304	4822 130 43818	2SC2878-A
Q305	4822 130 63876	2SA733R
Q401	4822 130 41651	2SC2001L
Q801	9965 000 20285	XISTR PNP CM5051-O SOT23
Q802	9965 000 20285	XISTR PNP CM5051-O SOT23
Q803	9965 000 20286	XISTR NPN CM5783GR SOT23
Q804	9965 000 20286	XISTR NPN CM5783GR SOT23
Q805	9965 000 20286	XISTR NPN CM5783GR SOT23
Q806	9965 000 20286	XISTR NPN CM5783GR SOT23
Q808	9965 000 20287	XISTR NPN DDTC114ECA SOT23
Q1002	4822 130 41198	2SC945P
Q2011	4822 130 41198	2SC945P
Q4001	4822 130 63876	2SA733R
Q4002	4822 130 43818	2SC2878-A
Q9002	4822 130 41198	2SC945P
Q9003	4822 130 63876	2SA733R
Q9004	4822 130 41651	2SC2001L
Q9005	5322 130 44506	TIP41C
Q9006	4822 130 41651	2SC2001L
IC101	9965 000 01369	LA1837 FM/AM IF/MPX IC
IC152	4822 209 15778	IC LC72131M
IC301	9965 000 15893	IC PT5228 SOP8
IC303	9965 000 17385	IC PT2259
IC304	9965 000 15886	IC RC4558D
IC305	9965 000 15886	IC RC4558D
IC306	9965 000 15886	IC RC4558D
IC307	9965 000 15886	IC RC4558D
IC401	9965 000 17383	IC STA308
IC501	9965 000 14154	IC STA505 50W X2
IC502	9965 000 14154	IC STA505 50W X2
IC503	9965 000 14154	IC STA505 50W X2
IC801	9965 000 19387	IC 64P LA9703W SQFP
IC802	9965 000 19388	IC 176P LC78663NRW
IC803	9965 000 20288	IC 36 PIN LA6560 SOP SANYO
IC804	9965 000 19389	IC 40P IC41LV16256-35T
IC807	9965 000 20289	IC 14PIN SN74LVC32ANS SOP TI
IC808	9965 000 19391	IC 14P SN74HC14NS
IC809	9965 000 20290	IC 8 PIN LM358MX NS
IC1001	9965 000 20291	IC 48PIN MBM29LV800BA-70PFTN
IC1003	9965 000 12495	IC ES6018F S242 UTRCD01T8
IC1004	9965 000 12499	IC SYNCHRO. DRAM 4MX16 Y3V TW
IC1005	9965 000 15884	IC AT24C02N-10SI-2.7
IC1006	9965 000 20293	IC 20 PIN 74F374D
IC1007	9965 000 20293	IC 20 PIN 74F374D
IC1008	9965 000 20293	IC 20 PIN 74F374D
IC1009	9965 000 20294	IC 16PIN SN74F157A NS SOP TI
IC1010	9965 000 20295	IC 28 PIN WM8772 TSOP WOLFSON
IC1012	9965 000 19385	IC 4P B1117N-2.85 SOT-223

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ELECTRICAL PARTS LIST - MAIN BOARD

TRANSISTORS & INTEGRATED CIRCUITS

IC1014	9965 000 15883	IC TC74HC04AFN
IC3001	9965 000 12510	IC TC4052BFN CHIP
IC4001	9965 000 15886	IC RC4558D
IC9001	9965 000 12512	IC BA05T ROHM
IC9002	9965 000 15887	IC RT9164-33CLR
IC9003	9965 000 12512	IC BA05T ROHM

Note : Only the parts mentioned in this list are normal service spare parts.

RGB BOARD

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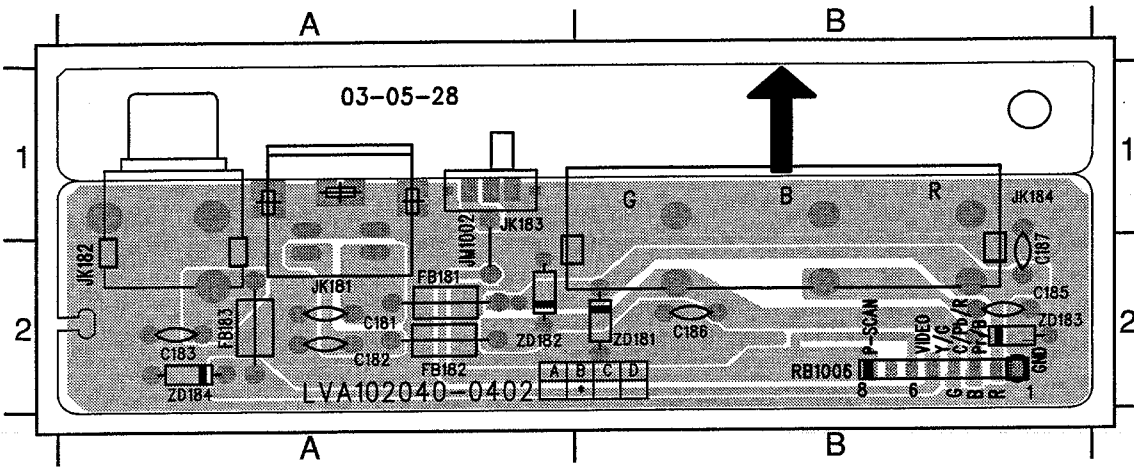
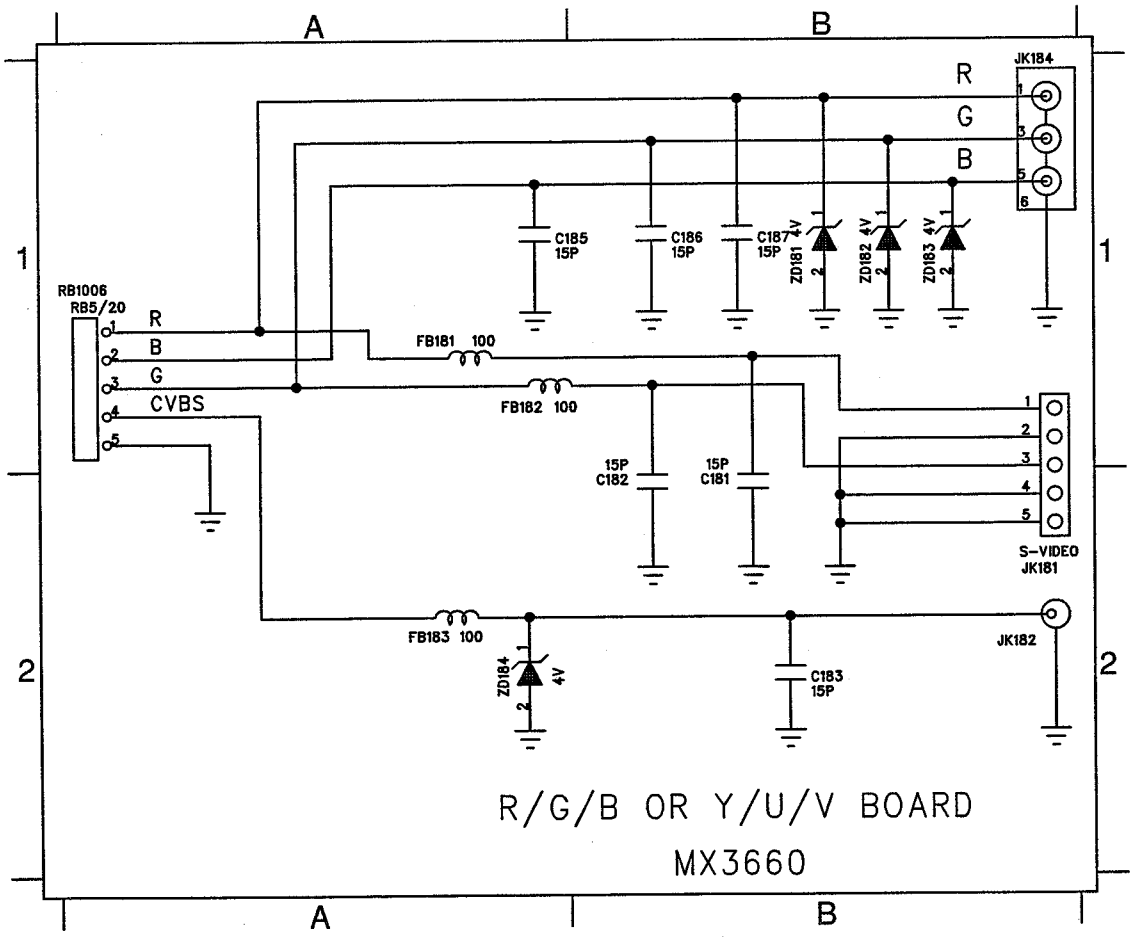
CIRCUIT DIAGRAM - RGB BOARD



C181	A2
C182	A2
C183	A2
C185	B2
C186	B2
C187	B2
FB181	A2
FB182	A2
FB183	A2
JK181	A2
JK182	A2
JK183	A1
JK184	B1
JM1002	A1
RB1006	B2
ZD181	B2
ZD182	A2
ZD183	B2
ZD184	A2

PCB LAYOUT - RGB BOARD



C181	B2
C182	B2
C183	B2
C185	A1
C186	B1
C187	B1
FB181	A1
FB182	A1
FB183	A2
JK181	B2
JK182	B2
JK183	A1
JK184	B1
RB1006	A1
ZD181	B1
ZD182	B1
ZD183	B1
ZD184	A2

ELECTRICAL PARTS LIST - RGB BOARD

MISCELLANEOUS

FB181	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHZ
FB182	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHZ
FB183	9965 000 12470	BEAD FERITE 100 OHM/ AT 100MHZ
JK181	9965 000 12607	DIN JACK (S-VIDEO OUT)
JK182	9965 000 18044	RCA JACK 1P
JK184	9965 000 12609	RCA JACK 3P

DIODES

ZD181	4822 130 31554	BZX79-B4V3
ZD182	4822 130 31554	BZX79-B4V3
ZD183	4822 130 31554	BZX79-B4V3
ZD184	4822 130 31554	BZX79-B4V3

Note : Only the parts mentioned in this list are normal service spare parts.

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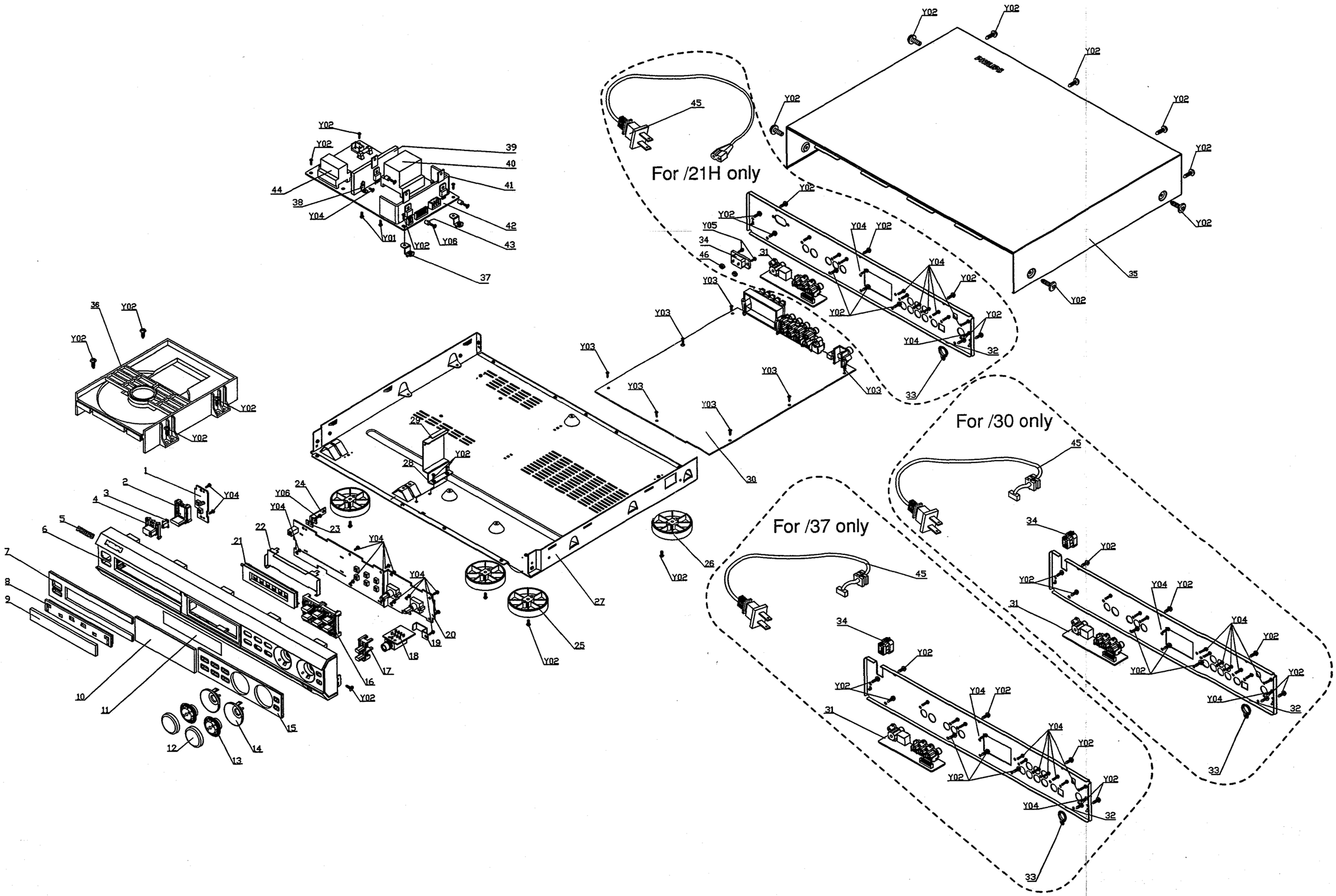
EXPLODED DRAWING



MECHANICAL & ACCESSORIES PARTS LIST - MAIN UNIT

2	9965 000 19680	OPEN / CLOSE KNOB	
3	9965 000 14097	LED LENS	
4	9965 000 19683	POWER KNOB	
5	9965 000 12424	PHILIPS LOGO	
6	9965 000 20571	FRONT CABINET	/21H/30
6	9965 000 20673	FRONT CABINET	/37
7	9965 000 20572	POWER LENS	
8	9965 000 20573	DVD DOOR	
9	9965 000 20574	DOOR LENS	
10	9965 000 19675	VFD LENS	
12	9965 000 19676	VOLUME CAP	
13	9965 000 14105	VOLUME SHAFT	
14	9965 000 14221	VOLUME RING	
15	9965 000 20575	FUNCTION LENS	
16	9965 000 19678	FUNCTION KNOB	
17	9965 000 19679	BASS / TREBLE KNOB	
25	9965 000 14110	FOOT	
26	9965 000 14111	FOOT	
33	9965 000 12441	FM HOLDER	
34	9965 000 20576 ⚠	AC SOCKET	/21H
34	9965 000 12817	BUSHING	/30/37
36	9965 000 20233	DVD LOADER (DVD-KDA898SP)	
43	9965 000 12445	SPACER	
45	9965 000 15983 ⚠	MAINS CORD	/21H
45	9965 000 15976 ⚠	MAINS CORD	/30
45	9965 000 12818 ⚠	MAINS CORD	/37
	9965 000 20236	FFC CABLE 6 PIN 120MM P=1.0MM	
	9965 000 20237	FFC CABLE 24PIN 240MM P=0.5MM	
	9965 000 14637	RCA CABLE 5000MM	
	9965 000 20577	RCA CABLE 1500MM OD2.6MM BLK	
	9965 000 14636	RCA CABLE 1200MM	
	9965 000 13060	REMOTE CONTROL	
	9965 000 20578	INSTRUCTION FOR USE	/21H/30
	9965 000 20674	INSTRUCTION FOR USE	/37
	9965 000 19688	SATELLITE SPEAKER PACKAGE	
	9965 000 14633	AM LOOP ANTENNA	
	9965 000 14632	FM ANTENNA	

LOUDSPEAKER BOX BREAKDOWN

9965 000 19690	FRONT-L SPEAKER BOX
9965 000 19691	FRONT-R SPEAKER BOX
9965 000 19692	REAR-L SPEAKER BOX
9965 000 19693	REAR-R SPEAKER BOX
9965 000 19694	CENTER SPEAKER BOX
9965 000 17047	KEYHOLE BRACKET PACK SET

Note : Only the parts mentioned in this list are normal service spare parts.

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SCREW LISTS - MAIN UNIT

Y01	M3 x 6
Y02	M3 x 6
Y03	M3 x 16
Y04	D3 x 8
Y05	M3 x 8
Y06	D3 x 10